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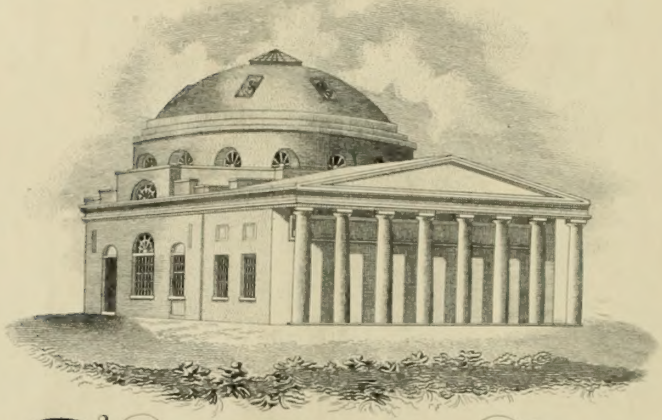

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(1) Text lost in inner margin during binding process.

HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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9

An Inaugural Dissertation

on

Medical Physiognomy

Presented for examination

to

The Provost, Trustees, and Medical Faculty

of

The University of Maryland

For the degree of Doctor of Medicine

By Jno. M. Henderson of Va.

March 10th 1831.

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In conformity to the rules and regulations of this noble institution, I find myself (in offering as a candidate for the degree of doctor of (Medicine) compelled to present to the honorable Faculty of Physic an Essay on some subject or other. In preparing for which task I scarcely know, whether in the choice of the subject, or execution of the essay I find myself more at a loss. Nevertheless compelled by necessity, yet conscious of my inability to give any thing like a Complete treatise on any subject, I have chosen to make my remarks on Medical Physiognomy, not as being a branch of medical science to the knowledge of which I have any particular pretensions, but as one though much neglected by Modern writers, yet peculiarly important to the young practitioner of Medicine.

In this dissertation I do not pretend to any originality, therefore I will make, but few quotations, as every idea (if not every word is borrowed from writer or other whose names I do not recollect at this time

I have no other apology to offer than incompetency. I will now take up the subject of

Medical Physiognomy.

I will not attempt to define the true signification and etymology of this term, but under this head propose to consider all the exterior circumstances (except the pulse) as far as they lead to the nature of diseases, including the Countenance, teeth respiration &c. Perhaps no one has made greater proficiency in this branch than the father of Medicine

I will now endeavour to notice in regular order the different parts of the body, which afford indications of this nature, Beginning with.

The Countenance

There are many diseases which the physician can discover by the appearance of the Countenance alone, as jaundice, pulmonary Consumption, dropsy, the exanthematic and pestilential diseases &c. In jaundice, besides yellowness of the Countenance there is a dullness bordering on blackness. The hectic Countenance attendant phthisis is familiar to almost every one. It is marked by a circumscribed spot on the cheek a pearly whiteness of the tunics of the eye, but what is called the hectic flush sometimes occurs in pneumonia. In pestilential fevers there is a red suffused, muddy eye, and a dusky or livid skin. These are some of the chief characteristics, but there are many others. In general a Countenance differing widely

from that of health denotes danger, hence it is common to say such a person will die, he does not look like himself. The hypocratic Countenance is well known to the experienced physician. It is marked by a sharp nose, hollow eyes, sunken temples, the skin of the forehead stretched and dry, the colour of the face dark livid, or leaden. This Countenance is almost always by a fatal result. It is said to be less certainly so in diarrhea, but even here it is of very dangerous import. Cholera will produce it sometimes in a few hours, but it generally accompanies some protracted form of disease. Cold lips always indicate the greatest danger. The appearances of the eyes in a sick person, are various. One becoming smaller than the other is a bad sign, a still worse is when objects appear less to one eye than the other. Dark livid veins or purple specks in the eye, Contracted pupil, want of motion, thrust out of the Socket, and diminution of brightness are all dangerous symptoms; also dilated pupil, Continued rolling of the eye ball, the lids partially closed in sleep denote actual or approaching inflamation of the brain. but the dilatation of the pupil should not be relied on under all circumstances. It is especially apt to deceive in examining the eye of a child during sleep. Sleeping with the eyes partially closed indicates a diseased condition of the Alimentary Canal. In children it may be produced by severe purging and is not so dangerous then. A good colour with a sullen look is a bad sign.

When the patient sees sparks of fire flying before his or her eyes, it indicates great accumulation of blood in the brain. Involuntary weeping is unfavorable, while volubility is exactly the reverse. A sardonic smile called Risus Sardonicus is a sign of approaching delirium.

The Tongue. The colour, surface, shape, and manner in which the tongue is protruded deserve attention. A pale yellow, or greenish tongue indicates the presence of bile in the alimentary canal. A clean, deep red smooth tongue is indicative of inflamation or high irritation in the stomach or intestines. The tongue is seldom much affected in acute symtomatic fevers from wounds or external inflamation. A fissured chapped tongue denotes much danger, so also when it resembles in appearance, raw beef. This is seen in pestilential fevers. A tremulous tongue when thrust out of the mouth is dangerous. When the tongue has its natural appearance in malignant fevers it portends the highest degree of danger. But when it becomes clean after having been foul, moist after having been dry, steady after having been tremulous a favourable change may be expected. Florid papilæ protruding through a layer of white fur is characteristic of scarlatina. The difference in appearance of the tongue in phthisis pulmonalis, and hectic with cough from hepatic and gastric affections is this. In the former it is clean and natural, in the latter it is covered with a brown fur. In this pecu-

very Hectic may be distinguished from a low obstinate intermittent fever for in hectic fever whether from abscesses in the lungs or any other part, there is always a clean polished tongue, whereas in other fevers it is of very different aspect. The Teeth. These also afford a source of diagnosis and prognosis to the practitioner. When covered by a viscid greenish or yellow matter is unfavourable. It is said to be indicative of a typhus condition of the system, with great disturbance of the chylopoetic viscera and brain, (a grating of the teeth unless the patient be accustomed to it) is often a forerunner of delirium.

Respiration. All unnatural breathing is unfavourable. Irregular and unequal indicates cerebral oppression. Abdominal respiration (that is when breathing is effected by the abdominal muscles alone) portends pneumonic inflamation. On the other hand breathing with the intercostal muscles, without the accessory action of the abdominal, indicates inflamation of the abdomen. A painful sobbing in fevers is a bad symptom. In pneumonic inflamation as long as the lungs or pleura continue diseased, respiration is quick, hence a full and free respiration is always hailed as a harbinger of returning health. It is at least an infallible evidence of a subsidence of local inflamation. Unequal respiration attended by frequent sighing is

is bad; indicating a difficult transition of blood through the lungs, and of consequence its imperfect decarbonization. There is a peculiar kind of respiration, mentioned by writers in hydrothorax. The inspiration quick and with great effort, expiration slower without effort. A wheezing respiration is attendant on asthma, cynanche trachyalis. In acute inflamations, particularly of the stomach or lungs, hiccough denotes much danger. also increased motion of the ala of the nose portends imminent danger.

Position of the Body.

When the patient can lie on one side only it is indicative of inflamation in the lungs or pleura. If he can only lie on his back with his knees up, head and shoulders elevated, carefully avoiding all motion and pressure, abdominal inflamation is strongly indicated. In dropsy of the thorax and abdomen, the patient cannot endure the horizontal posture.

Among the most unfavourable positions is when the patient lies on his back constantly slides down to the foot of the bed; as in the last stage of peritonitis. A continual and urgent desire to be moved from one bed to another is also a bad symptom. Here I may remark that a constant picking of the bed covering is recorded as an unfavourable symptom, by writers.

The Voice. An unusually sharp and quick voice is unfavourable, and all material alterations from its ordi-

many tone is also bad. Much talking when the patient is naturally taciturn, and suddenly ceasing to talk generally denote incipient delirium. A trembling voice is a dangerous symptom, but an entire stop to the voice is the worst of any. When the voice remains perfectly natural, there is some hope even amongst the worst symptoms.

The Extremities.

Unequal temperature is generally unfavourable. Cold wrists with warm hands is almost universally a fatal symptom. Cold feet are also alarming, but not so much so as cold wrists; for cold feet are natural to some constitutions.

Cold breath is said always to portend death.

Extraordinary as it may appear to the inexperienced practitioner, yet writers record a natural temperature in malignant fevers as indicative of the highest danger. Redness of the palms of the hands and soles of the feet is also a bad sign; occurring in yellow fever. A lividness of the ends of the fingers foretells danger. It marks a torpid circulation in the capillary vessels, and the imperfect decarbonization of the blood. It is said by some writers to be an uniform harbinger of death.

The External Senses.

I have already adverted to one of the senses, when speaking of the usual indications which the eye presents.

To these observations I will only add, that impaired
pression is an alarming occurrence. Hearing.
Deafness is generally a fatal symptom in violent
diseases; but in mild cases as in catarrh no alarm
ensues from it. Hearing musical sounds imports
the approach or actual existence of a serious af-
fection of the brain. A revival of hearing is ex-
ceedingly suspicious.
Taste. A vitiated or imperfect taste is not favour-
able. A great desire for animal food is one of the
worst varieties of vitiated morbid appetites.
A bitter taste denotes a redundance of bile, and a
sweet one gastric disorder. In the close of a fever, a
return of the appetite indicates a state of convales-
cence. A desire for tobacco or any other wonted lux-
ury is always favourable.
Sensation. This also affords some just indications.
Insensibility to heat and cold or any other exter-
nal applications is a bad sign. Preternatural sen-
sibility is no less so. It manifests itself by intol-
erance of light, draughts of air. This state may
be found in nervous fevers, also in Hydrophobia
and other morbid affections produced by poisons.
A return of sensibility, when not too sudden is favour-
able. It is expressed by the patient complaining of pain
in the parts, to which blisters have been applied. These
becoming red and inflamed.

As an other indication is that of picking the nose, particularly happening in children, and as an auspicious omen, unless it proceed from the presence of worms in the alimentary canal.
It indicates that kind of irritation, which is the forerunner of returning health.

The condition of the Mind.

Much information may be obtained from this source. Delirium is always a bad sign, but when attended with hilarity it is less so.
There is hardly any thing worse than a stupid delirium with low muttering and heavy sighing. Often, however a partial derangement of the mind does not amount to any serious consequence.
Delirium seems to be dangerous when it shews itself with a want of solicitude concerning the event of the disease, and inattention to the family and friends.
A contrary state of the mind is a favourable indication.

The Blood.

The appearances of the blood afford many valuable diagnostic and prognostic indications in disease, which are drawn from its different degrees of coagulability.
The ~~proposition~~ proposition was advanced by Hewson and confirmed by Hunter, that the force of the

circulation and coagulability were in inverse ratio. This however was afterwards disputed by Hey whose experiments were corroborated and confirmed by Heigton. Their results were precisely what might have been anticipated.

As the process of coagulation is a vital one it follows that the blood coagulates most speedily when in full health. Morbid action under all circumstances subdues the powers of life, and consequently diminishes that of coagulation, by this power we may judge of the violence and malignity of disease.

Dissolved Blood. In this case the constituent parts of the blood are commingled showing no disposition to separate, the vitality being greatly enfeebled. Dissolved blood resembles the washings of fresh meat. It indicates the greatest danger and occurs in malignant diseases.

Putrid Blood. This state of the blood resembles in appearance molasses and water. Sometimes the blood is partly dissolved, with some size on the surface; this is owing to debility of vital power, which is proven by its appearing in Scurvy and other Cachectic diseases. The different degrees of this Condition of the blood, are shown by only part of the crassamentum being dissolved. It occurs in the last stage of Typhus fevers, and is one of the most untoward Symptoms.

Another appearance of the blood is that of clear red, green, or greenish yellow serum. This occurs in autumnal fevers of extraordinary prolonged, and is a very dangerous appearance. But recoveries have taken place after each of these different appearances.

Scarlet Blood. This is the appearance of the blood when no separation of its crassamentum and serum takes place, and is always to be found where there is high excitement; as after severe exercise. The blood puts on this aspect also in the forming stage of rheumatism, pleurisy &c.

Sizy Blood. This is the most favourable appearance of the blood in disease. It indicates open undisguised action, as in ordinary inflamation. But exceptions to this may also be found, for in some individuals the blood is always sizy, but such are distinguished by a hard pulse. It also occurs in pregnancy. This appearance is not a little modified by many circumstances.

The size of the orifice and the size of the vessel both influence it. Blood may be drawn out of one arm which shall be sizy, whilst that drawn out of the other arm of the same person, and at the same time, will present no such appearance. These circumstances compel the practitioner to consult other signs.

The Secretions and Excretions.

Under this head I propose first to consider expectoration, as a source of diagnosis in disease.
Yellow coloured expectoration in common pleurisy is a favourable appearance, but if mixed with dark blood it is dangerous.
Frothy expectoration affords little or no relief, and imports no great danger. Discharges of pus are always alarming, as it presupposes abscesses or ulceration in the lungs. A tough yellow mucous affords the most relief.

The Faces.

It is observed as a general rule, that soft yellow faces of some consistency with no uncommon smell, and voided at regular periods denote health; but there are many exceptions to this.
Watery stools indicate great relaxation or a highly irritable state of the alimentary canal.
When the stools are lumpy and mixed with mucus slime, or blood it denotes high inflamation of the bowels. They are very apt to occur in dysentary.
Deep green or yellowish black like tar indicate a preternatural quantity of bile. On the other hand clay or ash coloured faces mark a deficiency of bile

The Urine.

In modern times the urine appears to have been

less regarded than formerly. The ancients among whom Hypocrates is said to have placed implicit confidence in the appearance of this fluid. Certain it is however in the present state of Medical refinement its importance as a diagnostic sign in diseases generally, is not much attended to. An increased and pellucid discharge indicates relaxation and nervous diseases.

By Blackall it is stated that the urine in dropsy affords one of the most unerring criteria in the various states of that disease.

Irritation of the urinary organs is attended by a difficult discharge of the urine. A discharge loaded with mucous or milky fluid fluid denotes disease of the chylopoitic viscera.

An abundant discharge is injurious, though at a crisis it is not always so. Thus in gout and rheumatism it is a crisis generally attend or rather followed by speedy convalescence. But a preternatural discharge of urine in pneumonic inflammation is indicative of imminent danger, also in diseases of the brain. Stranguary is an unpropitious occurrence, directing diseased action to the urinary organs.

Perspiration.

The knowledge of medical men on this subject is more accurate.

Hypocrates has said that universal perspiration on any critical day of fever is favourable, and subsequent experience warrants the Conclusion; but only when accompanied by warmth of the surface. Cold and clamy sweats, except in some nervous affections as hysteria, are very alarming. The same may be said of partial sweats early in fevers particularly appearing about the head and neck; they are said to portend a long and obstinate attack. But if they make their appearance in advanced stages of disease, they are still more to be dreaded.

A fœted and cadaverous perspiration is noticed by writers as generally a fatal occurrence.

With these few remarks I will Conclude this imperfect essay, Conscious that the least of a bad thing is best.

Tractatio Medico-Chirurgica

de

Hæmorrhagiâ Uterinâ

quam,

annuente Summo Numine,

Ex legibus ~~Academiæ~~ Terræ-Mariæ

ac Facultatis Medicæ consensu;

Pro Gradu Doctoris,

Summisque in Medicinâ honoribus et privilegiis

rite et legitime conseguendis,

Examini

Professorum eruditorum ~~Universitatis~~ Academiæ supra dictæ

subjecit Thomas O'Dwyer, Hibernus

Nonis Martiis anno 1831

Fugue laborantes Utero miserata puellas,
Quarum tarda latens corpora tendit onus,
Lenis ades, precibusque fave, Lucina, puellæ,
Digna est, quam jubeas, muneris esse tui,
Ipse ego thura dabo fumosis candidus aris,
Ipse feram ante tuos, munera, vota, pedes.

Ovid:

Judicio perpende, et si tibi vera videtur,
Dede manus; aut si falsa est, accingere contra.

Lucret:

Richardo Wilmot Hall
Artis Obstetriciæ in Academiâ ~~Universitate~~ Terræ-Mariæ
Professori inclyto, humanissimoque
et exercenti
in Urbe rem Medicam, artemque ~~[illegible]~~ propriam
Amico cum sidere et laude,

propter instituta, præceptaque purissima
quibus me longum per tempus imbuit; et ante omnia
propter Urbanitatem et benevolentiam integerrimam
quibus semper amicissime me honoravit, has primitias
Studiorum in Arte Hippocraticâ, summâ cum observantiâ
offero. Idque mihi propositum erit in omni vitâ, eo spectabit
animus meus, eo curæ, cogitationesque meæ intendentur, ut
in me gratum animum desiderare non possis, atque etiam
ut Officia tua paribus a me compensentur officiis.

Thomas O'Dwyer

Gulielmo Donaldson M. D

S. P. D.

Tu, vir prestantissime, mihi ex Bibliothecâ instructissimâ quicquid ad studium promovendum pertinere videretur, liberaliter suppeditasti. Enitar, et, ut spero, consequar, atque nulla de re laborabo magis, aut servabo diligentius, quam ut me de te bene meritum esse lateris. Non is ego sum, qui hic in laudes tuas jam satis concelebratas, neque tecum interituras, excurram. Faciant hoc alii, qui vel majore ingenio, vel dicendi facultate florent. Ego gratissimum animum publice testatus, id a Deo immortali precandum tibi et continenter exorandum duco, ut melioribus literis et arti Hippocraticæ, re familiari semper florente, salvum et incolumem diu servet.

Rogandus es, vir spectatissime, ut huic meo in te officio, si molestior fuerim, veniam concedas; quod tamen non aliunde nasci existimes velim, quam ex illo honore et obsequio quibus te merito et ex animo prosequitur

Tibi addictissimus tuique observantissimus

Thomas O'Beirne

Antequam hanc tractationem incipiam, liceat mihi Professores spectatissimi, elatos animi expromere sensus quibus propter multam utilitatem quam ex doctis vestris præceptis comparavi, emoveor. Ex vobis vero unum e medio sublatum adhuc lugemus; virum summâ humanitate, summâ doctrinâ insignem, qui quamcunque rem Anatomices tractavit, animo vidit, ingenio complexus est, eloquentiâ illuminavit, Wells τὸν μακαρίτην dico, quem hic commemorasse sat erit, ecquid enim ejus meritis, nostrove mærori respondeat? "His saltem accumulem donis, et fungar inani munere."

De hoc viro excellentissimo loqui cessare nequeo, quin de illo eadem, quæ Cicero olim de Scipione prædicavit, dicam: "Mihi quidem "Wells," quamquam est subito ereptus, vivit tamen, semperque vivet. Virtutem enim amavi illius viri, quæ extincta non est. Nec mihi soli ante oculos, qui illam semper in manibus habui, sed etiam posteris erit clara et insignis. Nemo unquam animo aut spe majora suscipiet, qui sibi non illius memoriam atque imaginem proponendam putet"

Ευδεις! — αλλ'ου Σειο λελασμενοι εσμεν, Wελλς!

Ου μεν Σου ζωοντος ακηδεες, ουδε θανοντος.

Insanabile cacoethes scribendi tenere multos, olim Juvenalis conquestus est. Sed si novisset quantum insudant, unguesque ad vivum rodunt in primitiis excudendis laureæ Apollinaris appetentes in Academiâ nostrâ florentissimâ, certe alterum modulatus esset carmen. Improba necessitas, ut unusquisque aliquid extorqueat, prius urget, quam sibi fas sit arma Æsculapii vibrare. Statuta et leges hujus almæ Academiæ ab omnibus qui summos in Medicinâ honores ambiunt, scientiæ Medicinæ specimen ac sui periculum facere postulant. His statutis et legibus obtemperare, hoc officio fungi,

animus, vota præsto adsunt, mihi tamen vehementer dolet, quod aureum illud Horatianum exequi non liceat; "me non penes esse, sumere materiam meis viribus æquam, nec versare diu quid ferre recusent, quid valeant humeri," dicerum!

"Sed omnis fortuna ferendo superanda est."

Homines diversis et multis morbis obnoxii sunt, quâ quidem in re, sors mulierum paulo miserior est, utpote quibus, præter morbos quibus homines æque ac eæ laborant, alii insuper proprii, iisque ipsi neque leves neque pauci contingant. Hæc autem mala partim ex infirmitate, partim ex formatione partium, præcipue γενεσεως oriuntur; adeoque eas vexant, atque vitæ omnem usum fructumque corrumpunt, ut nemo qui sit vir, ac "nihil humanum alienum a se putet," non moveatur misericordiâ et dolore sexûs nobis tam fidi, tam conjunctissimi, tam amabilis, tam necessarii; quo magis a Medicis non solum misericordiam, sed etiam opem et auxilium jure sibi vindicant.

His rebus inductus pauca de Hæmorhagiâ uterinâ Gravidarum dicenda mecum decrevi

"Parce, precor, facilis Lucina, puellis,"
"Maturumque Utero molliter aufer onus."

Multa et pene innumera pericula Gravidis imminêre, ex tristi experientiâ notum est; perturbationes enim animi, corporis vitia, lapsus, aliæque hoc genus causa funestos apud eas casus gignunt.

Cum autem non omnes mulieres gravidæ sanguinis profluviis seu hæmorhagiâ uterinâ tententur, et pleræque omnes gerant, pariantque liberos ab eâ prorsus libera; quælibet vero, causis satis validis oblatis, in morbum incidere possint; Primum igitur de corporibus quæ maxime opportuna morbo sint, tum de Causis quæ vel hæc vel ~~alia~~ quævis alia corpora, nullâ ratione latentis semenii

habitâ, in morbum conjiciant, est disserendum. Laxus igitur tenellus, plenus, irritabilis, et sanguineus habitus, Haemorhagiæ Uterinæ præ ceteris opportunus est. Qualem ea mulieres habent, quæ lautius aut plenius vescuntur, parum exercentur, animi perturbationibus commoventur; hystericis malis convelluntur, nimiâ κατάρρυσις copiâ afflictantur; quibus pregnans abortus, fluor albus aut etiam hiece morbus antea accidit; item quæ duros tumores, luem Veneream, aut plerosque alios Uteri affectus expertæ sunt. Sed inter tot ac tanta pericula tam diversa et dissimilia quæ ventrem ferentibus timenda sunt, nihil magis formidandum, quam hæmorhagia Uterina, utpote quæ sæpe matri et partui mortem minetur, præcipue si ignaris seu temerariis hominibus salus mulieris, ejusque prolis committatur. Medici igitur parturienti auxilium ferentis multum interest, remedia et rationes quibus eventus tam dirus averti possit, penitus cognoscere.

Ovum quod continet fœtum, vasis plurimis Uteri junctum est; hæc pene innumera vasa, eâ in parte ubi intrant placentam, fiunt majora, at in membranam deciduam recepta, minora; atque ità placenta seu hujusce membranæ seperatio ab Utero Haemorhagiæ causa proxima habetur. Supra dicta causa et ipsa variis et aliis tribuitur causis; inter quas sunt 1mo omnes cibi et potationes vehementer stimulantes, calidiora emenagogua Urinam moventia, supra et infra, præsertim valide, purgantia, quæ totum corpus irritant, sanguinemque ad uterum pereitant, Haemorhagiam faciunt, violentæ corporis agitationes, quales choreæ, rheda aspera per loca vectio, onera tollendi nisus, desidendi irrita cupiditas, nimius cachinnus, tussis vehemens, sternutatio, cursus anhelans, alvi crebrius justo

fusa actio, quod affirmat Hippocrates Aphor: Lib: 5 § 34. Γυναικὶ ἐν γαστρὶ ἐχούσῃ ἦν ἡ κοιλίη πολλὰ ξυῇ, κίνδυνος ἐκτρῶσαι. aliaeque hoc genus causae. Ex retentis primum memorandus videtur plenus habitus, qui ea Menstruis subito subsistentibus, et partu nondum ad eam magnitudinem aucto, in quam totus sanguis retentus insumatur, natura solito menstruorum tempore nitente, vivi consuevit. Praeterea alvi duricies, cui Gravidae adeo fere opportunae sunt, saepe est causa. Idem Hippoc: Lib: 7. § 27. dicit: "Γυναικὶ ἐν γαστρὶ ἐχούσῃ τεινεσμὸς ἐπιγενόμενος ἐκτρώσαι ποιεῖ." Sterens enim durum non solum intestinum rectum, ideoque vicinum quoque Uterum irritans, sed intentior illud exprimendi labor nocebit. Postrema, occlusa perspiratio, humorum vim in interiora itaque in Uterum repellens, haud alio spectat

2do. Virgus vehemens, summum corpus spasmo adstringens, et sanguinem ad vasa subter cute impeditum, in interiora, eaque loca prae ceteris ubi minus resistitur, rejiciens, simul perspiranda occludens, ad morbum quoque aliquid conferre potest. Quin etiam gravis ardor humores rarifaciens, et firma resolvens eadem ratione nocet. Vires ab externo, ut ictus, lapsus &c

A Pere narratur casus Gravidae, quae dum ancillam iracunde insequeretur, ventrem ad mensam offendit, et ex inde Haemorrhagia talis orta est, ut partum accellerare necesse fuerit, quo ea morti eriperetur; sed fatiis caput a nasi radice ad cervicis primam vertebram juxta suturam sagitalem in duas partes divisum se invenisse dicit, atque capitis sic divisi collogue connexi utramque partem inclinatam in humerum cui proprius accessit. 3tio. Graviores animi

perturbationes, et præ cetéris ira et terror quæ talia omnia cordis actionem intendunt, spiritum crebrum ideoque sanguinem citatiorem reddunt, hæmorrhagiam faciunt. Smellie, si bene recordor, narrat se vidisse mulierem hæmorrhagiâ violentâ correptam ob terrorem domus flagrantè. Eodem etiam pertinet concubitus frequens simili modo agens, et ipsum uterum movens et irritans. 4to Irritamenta quibus systema nervosum vehementius agitatur, placentam seu membranam deciduam seperare, fœtumque vitâ privare solent; quia convulsiones et spasmi quibus violenter succutitur Uterus, ex nervorum irritatione eveniunt. Morbi seu vitia ipsius Uteri, ut supra dictum est, nempe polypus vel schirrus hæmorrhagiam producunt.

5to Placenta sive dextræ sive sinistræ, sive Uteri cervici sive denique protinus supra os internum adhæreat; illius seperatio hæmorrhagiam necessario facit; si non ante, saltem sub tempus parturiendi; nam oris Uteri dilitatione placenta e loco, ubi incerta fuisset, avellitur, et ruptis vasis, quæ placentam intrant, sanguis tali profusione erumpit, ut, nisi auxilium statim adhibeatur, et mulier et proles pereant. Hæmorrhagiâ ex hacce causâ oriens a Rigby vocatur necessaria, et recte, sicut affirmat Deewes, vero hæmorrhagia oriens ex causis supra dictis vocatur contingens. Postremo partûs præter naturam positus, aut magnitudo, quo minus sine vi excludatur, prohibens placentam quoque ab utero seducere, hæmorrhagiam infere notus est. Etiam fœtûs motus irritando uterum,

hæmorrhagiam nonnunquam efficit. Quin et eadem causa, placentam ab Utero divellendo præsertim si funiculus umbilicalis vel justo brevior est, vel circa fœtûs cervicem replicatus; malum idem facit. Quarum rerum conjunctus effectus inter pariendum maxime evidens est. Itaque caput prolis, quamvis per singulos dolores productum, his tamen remittentibus, protinus eodem unde processit, Uteri fundo per funiculum umbilicalem retrahente, retro recedit. Ergo quæcunque Uterum ad violentas contractiones excitant, eodem sanguinem dimittunt, hujusve per venas æqualem et expeditum reditum prohibent, atque sic antequam fœtus natus sit, placentam ab Utero semovent, sane pro morbosi sanguinis profluvii causis habenda sunt. Cum hæmorrhagia quam tractare mihi proposui, ex vasis, quibus menstrua naturalia, eâdem ratione oriatur, et idem fere humor nempe sanguis ruber, effluat, magnâque ea parte communis Catameniis naturâ subsit; ideo pauca de Catameniorum temporibus, et de signis quibus eadem post conceptum permanentia ab his profluviis dignoscantur, quo morbus magis notus sit, dicenda existimavi.

Apud omnes mulieres sanâ valitudine fruentes, ventrem ferentibus demptis, a decimo quarto aut quinto anno ad quinquagessimum Catamenia permanent. Ergo si in Gravidis adparent, his signis dignoscenda sunt.—

Catamenia suis temporibus continentur, cum e contrario Hæmorrhagia Uterina nullo passim ordine se ostendit: præterea in hæmorhagiâ plus sanguinis plerumque erumpit;

Catamenia Gravidarum multo minus emittunt. Sanguis menstrualis purior est quam illo qui ea morbo oritur,

utpote qui aliis rebus aut fluidis permisceatur: ad hoc, Hæmorrhagia haud magnis intervallis, levissimo quoque momento sævior redire solet. Cum Catamenia Gravidarum ex vaginæ vasis, non ab ipso Utero oriri videantur; altera vero profluvia semper ex Uteri vasis nascuntur, hæc quoque res aliud discrimen dabit, nam si, digito intromisso, os Uteri arctius clausum inveniatur, est cur credatur mali sedem in Vaginâ esse. Contra Uteri os resolutum et quodammodo patefactum, gravioris mali et ab ipso Utero profecti argumento est. Hæc discrimina, ut opinio mea fert, satis manifesta sunt. Quoniam vero a Medico postulatur non solum remediis salutiferis morbos depellere, verum etiam venientibus occurrere, pauca præcepta necessaria Gravidis quæ hæmorrhagiæ opportunæ sunt, vel quæ jam ante morbo afflictæ, reditum timent, tradam.

Omnia acria et irritantia genera cibi et potionum evitanda sunt. Contra victus nutriens, levis et concoctu facilis, parvâ copiâ, sed sæpius capiendus – simul animi tranquilitati inserviendum, lætitia præstanda; neque tristia subito nuncianda, venus frequens vitanda. Porro quibuscunque mulieribus plenus habitus ex του καταμηνιωδεος περριττωματος retensione post conceptum inciderit, venâ sectâ circa tertium mensem, aut quolibet alio tempore si causa eadem permanserit, opus erit. Quod auxilium si quâ sanguinis profluvium represserit, magis efficax videbitur. Neque Hippocrates audiendus, qui dicit;

Γυνη ἐν γαστρι ἐχουσα φλεβοτομηθεισα εκτιτρωσκει, και μᾶλλον ει μειζον ἔιη το εμβρυον.

Professor Potter homo abundanti doctrinâ, et incredibili quadam

varietate, et copiâ rerum Medicarum, docet, non prohiberi praegnanti venam non omnino secandam, affectu seu habitu corporis venæ sectionem postulante; sed temere id fieri non oportet, minusque sanguinis, quam si mulier ventrem non gestaret, detrahendum esse. Quinetiam præceptor noster artis obstetriciæ peritissimus, qui obstetricium in hac florentissimâ Academiâ summâ cum laude docet, Gravidas sæpe venam sectam ferre demonstravit. Alvus adstricta, quæ morbum aliquando facere supra dicta est, leniter sobvatur, et soluta servetur.

~~Hæmorrhagia quæ sub finem gestationis apparet~~

Hæmorrhagia quæ sub finem gestationis apparet, magis formidanda est, quam illâ quæ initio apparet: non ad manûs auxilium sæpe recurrendum, quamvis partum expedire, vel abortionem inferre in omni casu, passim nos docent scriptores multi: sed errant, ut opinio mea fert.

Constat inter omnes qui de Obstetricio scripsêre, fœtum ex utero sectum ante mensem expulsum vivere non posse. Quicunque igitur obstetricis officio fungitur, secum attentius volvere debet, antequam consilium capiat, quo spes parentum deleatur. Scriptores qui in omni casu partum excitare docent, pro certo habent, hæmorrhagiâ inceptâ, rem nequi esse, fœtum morte liberare. sed non ita res sese habet; quia sæpe evenit, sanguine arte represso, mulierem convaluisse, justoque tempore peracto, fructum felicissime in lucem edidisse. Medicus igitur morbi adventu, quietem animi et corporis præscribere debet: lecto duro, et situ horizontali incumbat parturiens, qui situs corporis hoc modo jacentis et quiescentis, toto corpore sanguinem

tardat, minusque quam cum erectus sit, ad Uteri vasa dirigit. silentium quam maximum observatur, atque etiam omne ingratum, quod animum commovere aut excitare queat, ab illâ amovendum est; neque gaudio insolenti aut subito cedendum; nam quietis seu tranquillitatis ea virtus est, ut illa sola, etiam sine alio remedio haemorhagiam sape sanare possit, sine illâ nihil sperandum. Gravidâ in lecto positâ, haec in primis Medico examinanda sunt; Primo: Status aegrotantis, 2do. Cervicis ac Uteri positio, 3tio. placenta ubi Uteri adhaereat necne; 4to. quantum sanguinis effusum: ut qualis sit cursus, innotescat, tardus an velox: haec omnia scrupulosam considerationem sibi vindicant. Morbus vel ex plethorâ ortus vel temperamento sanguineo "methodo antiphlogisticâ" et praecipue venae sectione tractandus est. Dum in haemorhagiâ ex plethorâ ortâ, venae sectae utilitatem admitto, eam in haemorhagiâ aliis ex causis ortâ omnino rejicio; quando scilecet ab "atonicâ" provenit, nam sanguinem detrahere, et vires debilitat, et morbos gravissimos Gravidis sape infert. Ab iis qui graviditatem morbi speciem tenent, et vena sectione in omni morbo utentes, eam etiam in graviditate monent, omnino dissentio. Hasce opiniones non flocci facio, merae nugae et artis medicae quisquilia sunt: quicquid enim dicant illi, graviditas aque ac aliae corporis functiones est naturalis, et fere nullum ab arte auxilium postulat. In Gravidis junioribus,

et robustioribus plethora non raro existit, et in hoc corporis habitu, siccis faucibus, facie suffusâ, vertigine, aliisque febris symptomatis existentibus, de utilitate venæ sectæ nunquam omnino dubitatum est: sed parce et caute, sicut supra dictum est, detrahi debet. Hæmorhagia, ubi locus est suspicari, arteriarum diruptionem non ab earum plenitudine oriri, variis aliis modis cohiberi potest; præcipue linteis vel spongiis aquâ frigidâ imbutis, ad vulvam dorsumque admotis, linteaque etiam madida aceto aquâ mixto, et abdomeni cruribusque appositæ, mulieri profluviis laboranti multum prodesse videntur. Vide Levret, qui hæc remedia, et alia multa quæ magis efficacia ad hæmorhagiam sanandam sint, plenius, ac latius tractat. Confer etiam Smellie, Denecs et multos alios. Cavendum vero est, ne remedia frigida, præcipue Gelu, longius utantur, ut Professor Potter in sua prælectione de reprimendâ hæmorhagiâ uterinâ monet: quando enim temperies corporis est talis, ut color plus quam solito imminutus sit, tunc frigida nocent: aliquando etiam pannos aquâ tepidâ imbutos, manibus, stomacho, pedibus apponere necesse erit: Sed hoc tantum ubi hæmorhagia abundans fuisset, vel nimis durrasset, et ubi timendum ne vires vitales deficiant: Præceptor noster, profluvio incipiente, mantile, vel sudarium vel tale aliquid in vaginam introduci suadet.

Utilitatem adstringentium in dubium voco; etenim eorum multa nulla tali virtute prædita esse, experientiâ cognitum est; sed e contrario tonica sunt.

et ideo non utenda; virtus enim Tonicis remediis est, vim cordis augere: ex eo fit, ut sanguinis impetus in uterum aeque ac in caeteras partes corporis validior sit.

Haemorrhagia etiam nonnunquam sisti potest dando aliquod ferens ad stomachum nauseam. Detur igitur Ipecacuanha parvas in doses divisa, seu Prussias Ferri grs xx seu Nitras Potassae, vel recipe

℞ Tinct: Gum: Kino ——— ℥j
Tinct: Thebaic: ——— ℥j
Elix: Vitriol: ——— ℥ij
Aq: ——— ℥iss

detur cochlear: min: mixt: cum cyatho aq: pro dose ~~etiam~~ seu ℞ mur: Tinct: Ferri gtts x. misceatur cum cyatho aq: — Sumd: cochlear: min: tertiâ quâque horâ. Haemorrhagia post sextum mensem a conceptu superveniens, res periculosa est: tunc enim vasa uteri magnitudine aucta, sanguinem copiosius effundunt. Scriptores inter se dissentiunt, et quid consilii: talibus in casibus capiendum, quem modum agendi ignorant. Sunt qui acceleare partum jaudent, manu introductâ, cum primum sanguis effluere inciperit, ne mulier, multo sanguine amisso, vires perdat, si ut dicunt, mora sit. Sunt etiam qui affirmant naturam in omni tali casu sufficere. Vide "Recueil de plusieurs memoires" "et observations, par Jean Baptiste Gasc. à Paris. an: 1810" qui plurimis verbis hasce duas sententias sub judicium vocat, et exquisitâ curâ, summoque studio pensitat.

Tandem deventum est eo, quo tendimus. Ultimus vero terminus huic tractationi non ante imponendus quam propter minus nitidam impolitamque orationem, quod vix aliter accidere possit, quando quidem me in oridine scribendi exquisitiori non ~~xx~~ calere sponte confiteor, veniam rogaverim. Inter varia et ambigua multa veritatem ipsam enixe ~~xx~~petivi. Aequum vero est. Lector benevole, si tibi aliter sentire videtur, ut libere palamque, dummodo honesto probogue animo facias, me reprehendas et arguas.

An Inaugural Dissertation

on

Acute Hepatitis

examination of the President, Trustees and

Submitted to the Medical Faculty

of

The University of Maryland.

For the Degree of Doctor of Medicine

by

John A.P. Hosey.

Maryland.

1831

Hepatitis Acutus.

The liver is a very important organ in the animal economy; consequently any derangement of its functions must be injurious both to the health and constitution of the patient. Nevertheless the peritoneal covering of this valuable viscus is peculiarly subject with the parenchyma to attacks of acute inflammation,

We shall restrict the remainder of our remarks to the symptoms, causes, and treatment of this disease under its acute form:

I In the first place, the symptoms which characterize peritoneal inflammation, will deserve our attention: There are namely pain in the right hypo-

Chondrium increasing on pressure and extending to the back and shoulder. a white and dry tongue, hurried respiration, and uneasiness generally experienced when lying on the left side. If it be the right lobe of the liver inflammed the pain will be in the right shoulder, and vice versa.

Cough is also a symptom of acute Hepatitis; and is the consequence of the diaphragm becoming involved in the inflammation. The last symptom has had more stress laid upon it from its being common also in Pneumonia.

In order to distinguish the latter from Hepatitis we cause a full inspiration to be made, in pneumonia the cough is not always exhibited but the pain is. while this symptom generally appears on the second or third day of the disease; in the latter the pain is increased by pressing on the Hepa

tic region.

In the next place of acute inflammation of the parenchyma, the diagnostics are not very different from those of the peritoneal investment. A degree of enlargement is however, in general a concomitant of this. Nor is the pain in inflammation of the substance of the liver so pungent as in peritoneal inflammation. To these jaundice may be added, the urine frequently is of a deep yellow colour; a yellow or white fur invests the tongue; the pulse is frequent and hard, the skin hot and dry; and the stomach nauseates sometimes even to vomiting, not from the communication of inflammation but by sympathy with the parts affected.

It has been remarked that southern latitudes have a great influence in predisposing the system to more violent

attacks of this malady. Hence the greater degree of inflammation in its incipient stage, and hence the greater rapidity with which it proceeds to suppuration. That abcess, indeed, much more frequently occur in Southern than in northern latitudes, is noticed by medical writers, but were the antiphlogistic plan strictly enforced in every case, suppuration would much less frequently occur. When chilliness, acute pain, and a full and frequent pulse continues, we may infer that an abcess will form. The actual existence of purulent matter is indicated by a sense of heaviness in the parts, throbbing pains, flushing of the face and all the symptoms of hectic fever. In the progress of the disease it is further to be observed that the liver and parietes of the abdomen may for adhesions, a tumour is formed and the matter is

thrown off externally, sometimes it discharges itself into the abdominal cavity and then producing peritonitis and hectic fever and quickly destroys the vital powers, at other times it finds its way into the thorax by abrasion and is sometimes expectorated, by adhesions of the liver to the stomach or colon it may be discharged into either, and lastly it may be carried off through the gall bladder which is of all the most favourable passage.

I. Having thus stated the symptoms, I am next to speak of the predisposing and exciting causes. Among the principal of these, we have already alluded to heat. In addition to this we may add marsh effluvia, exposure to cold, excessive bodily exercise, great anxiety of mind, derangement of the digestive organs, intemperate use of ardent spirits, external violence,

alculi, in fine all file up this formidable list of morbific causes. Nor are these less important in guiding us in the nowledge and treatment of this disease. The application of e exciting causes must be avoided otherwise in vain will our emidies be administered. Is it from anxious toils of the mind? the student must be drawn from the midnight lamp before medying the symptoms. In this way too; must the intemperate man quit his stimulating drinks; the fatiguing duties, ny whatever impair the vigour of the constitution, all must e first carefully be avoided, if ever we hope successfully to administer our remidies.

II. In the third, and last place, we shall now pass from the ymptoms and causes to the best mode of treating acute hepatitis.

The treatment of this disease in its acute stage is simple.
While the pulse is hard and frequent we should freely employ the lancet and is our great enemy to inflammation.
But we should recollect that we cannot reduce the pulse even if we bleed ad deliquium. when there exists a calculus in the liver or other viscera. blood letting both general and local should freely be used, warm fomentations to allay the acute pain. As to our cathartics the Neutral Salts should be preferred and if the stomach will bear them they should be liberally given. if they are rejected Oleum Ricini may be tried and other mild medicines and if they do not rest on the stomach or produce the desired effect we should resort to others as Calomel in large doses combined with some other medicine &

In obstinate cases of constipation we must have recourse to more drastic articles such as gamboge, elaterium, colocynth &c. croton oil &c. Antimonial preparations may also be used with advantage and acts by diminishing the action of the heart and arteries and equilizing the circulation. blisters are useful after the reduction of the pulse.

Professor Potter says "the practice of prescribing mercury indiscriminately is not only useless but injurious in acute hepatitis" In addition to the above we remark that a perfect antiphlogistic regimen is to be enjoined.

The deceitful remissions which sometimes occur in the progress of the cure must not throw the practitioner off his guard: but on the first return of pain, the same remidies must be again resorted to.

Peroratio. when we consider the various diseases to which the human system is liable and how neglectful mankind are in taking the necessary precautions to guard against them, we must at once be struck with the great importance of the healing art.

There is scarcely any disease in which the powers of medicine are better displayed than in hepatitis. A disease of frequent occurrence and, one which the physician is often called to treat.

To understand its pathology. then, is an object worthy the attention of the medical student, and if he would build his knowledge on a solid foundation and proceed by degrees to the summit of his profession, he must persevere and never forget

that "labor vincit omnia,,

Tractatio vel Thesis

De Hepatide

Praefecto, fide commissariisque
Facultati Medicinae,
In Terrae-Mariae Academia
oblata,

In faciendo periculum in literis
Pro Gradu Medicinae Doctoris

à

Gulielmo A Gillespie
Virginiensi

Tertio Mense
MDCCCXXXI.

Clarissimo Chirurgiae Professori,

In Terrae Mariae Academia,

N. R. Smith M.D.

Cujus facultates animi, peritia Scientiae

Et felicitas docendi

Solum aequantur

Venustateque fama bona

Hominis privati,

Hanc Tractationem

Votis omnibusque faustissimis

Dat; dicat, dedicat

Auctor

De Hepatide

Hepar est glandula maxima in corpore et structura ejus ipsa complicata est quam ea ullius organi; nam dum suppleta est sanguine ab arteria hepatica, recepit sanguinem reverentem ex iis visceribus abdominis per venam portae, quae perficit arteriae officium ferendo sanguinem, ex quo certa secretio eliminata est venae cavae hepaticae reddunt superfluum sanguinem ad cor, dum ductus excretorii vel biliarii deferunt secretionem in vesicam fellis vel duodenum.

Bilis, propria secretio hepatis est sane valde momentosus actor oeconomia animali; sine ea, salutari conditione digestio non rectus procedit, facultates generales constitutionis fiunt imminutae agmen consecutionum maxime lamentabilimque etiam fatalium, accedit. Magnitudo immensa hepatis, ut comparata aliis organis in foetu et existens in plurimis animalibus, in quibus organi alii momenti magni, desunt, ejus magnitudo ita inaequali quantitati probabili bilis secretae, viderentur indicare esse alicujus, magni et gravis, forsitan ad hoc tempus, ignoti usûs praeter eum ferendi constanter quantitatem minimam bilis.

Actio hepatis multum affecta est animi affectionibus. Subita fixa vel impetus animi repentinus interdum ferret icterum universum cutis, dum moeror, solicitudo, frustratioque fervor mentis derepsae retardabunt, corrumpent vel in totum suppriment pro tempore bilis secretionem.

Consensus hepatis cum aliis magni momenti organis sunt valde manifesti. Inter stomachumque hepar continenter vidimus intimam consensionem. Cum stomachus est turbatus, functiones hepatis statim impedientur, et medicinae, fortasse, cum captae

stomachum, stimulant hepar consensu, dum in heparis morbis nihil est magis commune quam variis formis dyspepsiae. Inter cutemque par est consensus hic actionis et nihil est magis constituta quam consensu perpetuo inter cerebrumque hepar. Ictusque vulnera capitis saepe gignunt abscessus in hepare, et dolor capitis, vertigo, stupor vel affectio alia affinita, constanter fermè comitatur heparis morbum.

Occupans locum adeo conspicuum in structuram organicam corporis, relationibus ejus complicatis, obnoxium affici adeo a multis causis non est mirum hepar affici morbo quotiescunque partem ullam corporis. Heparis sunt multi morbi, vel fortasse proprius dicamus multi gradusque multae varietates ejusdem morbi, propter climam, tespestatem; aevumque mores aegroti, propter propensionem vel hereditariam vel acquisitam et propter applicationem causarum excitantium; sed nomine familiari hepatidis, omnes formas comprehederimus, nisi enimvero, biliariae secretionis perturbatio temporaria inscripta sit includi, quamvis si perdurata longum tempus ita terminaret.

Hepatitis, causa descriptionis, divisa est in acutaque chronica; fortasse heac est utilis distinctio, sed sunt casus comitati actione multum inflammatoria et sane procedunt ad suppurationem quamvis chronici secundum tempus. Arbitramus omnes formas dependi ex inflammatione et differri tantum ratione violentiaeque rapiditatis actionis.

Est medici praevertere aeque ac curare morbos; idcirco investigatio causarum comprehendit non partem parvam ejus officii. Experientia, illa certissima dux, in medica aeque ac scientia omni humana, multum confirmavit verum thesis argumenti, ut fermè quisque habet aliquam constitutionis predispositionem (hereditariam vel acquisitam) ad aliquem morbum peculiarem.

Alii organi (vel organum) debiliores vel imperfectiores sunt in sano illorum
facultatibus aliis, et quum equilibrium actionis sanae semel perturbatum
est, malum vel violentia precipua actionis morbidae facit impetum
tactâ vi in organis ita predispositis. Haec predispositio ferme constanter
observata est in aegrotis jam dum affectatis ab aliisque dissimilibus mor-
bis; ita manifestant notas veras morbi, cui ita predispositi sunt.
Calor agit ut causa predisponens morbi, inducendo debilitatem ex
incrementoexcitationis et inde coacervationem hepaticae circulationis.
Haec est ratio cur hepatitis ita magna ex parte prevaleus multum
in regionibus calidis. Miasma est alia causa quae agit, modo dissimili,
producere easdem affectiones i.e. affectando directè cerebrum que
systema nervosum ut venenum et indirectè perducendo debilita-
temque congestionem hepatis: haec est ratio cur hepatitis plus valet
plagis in paludosis et persepe succedit febribus intermittentibus que
remittentibus malè tractatis. Excessus edendo, vita sedentaria, bib-
endum spirituosorum liquorum sunt morbi causae. Frigus est maxi-
me communis causa excitans hepatidis aeque ac alianum phegmasi-
arum quae prevalent in regionibus habentibus calidas aestatesque
frigida hiberna tempora. Effluvia paludosa plerumque gignunt
conditionem tardamque chronicam morbi. In hepatide acuta sig-
na morbi plerumque sunt valde manifestaque severa. Est
dolor semper acutus presurâ in hepatis regione continens ad dex-
trum humerum vel scapulam vel dorsum; dolor in scrobiculo
cordis, in capite, lingua alba vel subflava vel subnigra, pulsus
frequens et durus, stomachus irritabilis, vomitus, cutis calidaque
arida, difficultas in jacendo in sinistro latere, interdum cum-
cita, difficili, dolorosa respiratione que tussi, rubicunda parca uri-
na interdum cum ictero. Inflammatio extendat ex hepate

ad pleuram et gignat omnia signa pneumoniae. Intestina sunt abnormia plerumque constipata. In regionibus calidis valde citus est progressus morbi et terminaret in suppuratione prematuro tempore. Gangraena interdum sed raro supervenit. In hac regione sine propriis remediis abscessus non infrequens terminatio est. Terminaret in induratione glandulae, sed hoc est magis commune in minore gradu inflammatoriae actionis. Hepaticus abscessus semper est periculosus et frequenter fatalis eventus. Abscessus format adhesiones cum parietibus abdominis, rumpet exterius et pus evacuaretur foramine quod fieret cultro simul ac est plane suppurationem existere; quia constitutio non possit sustinere processum naturae tardiorem. Adhesiones interdum fiunt cum vesica fellis, vel fortasse cum duodeno, colo, vel stomacho et pus est evacuatum et aegrotus sanit. Pus evacuaretur in abdominis cavo inducens peritonidem vel febrem hecticam quod sit fatale, vel corrodat diaphragma eat in pulmones et partim evacuaretur, sed haec plerumque est fatalis terminatio. Hepatidis acutae remedia debent esse activaque decisiva, nam non est ullum tempus animum aegroti detinere medicinis mitibus. Venesectio ex brachio pleno vivo sanguinis, usque eo quo opus erit, statim sit effecta et repetita pro re nata. Subsequendum plenis portionibus catharticarum medicinarum et fortasse ventri sales praeferentur si agant. Hydrargyri submurias ut cathartica medicina plerumque commendata est, sed si alia remedia possunt purgare intestina, ea non utendum est, in statu maxime inflammatorio, ut tendit excitare stimula vi; sed si ex irritabili stomacho, non alia cathartica retineretur et actio repressa est gradatim venesectione, data sit tuta et fortasse remanebit in

stomacho, aliis defectis. In extremis vel dubiis casibus jalapa
cum monia, gambogioides, oleum tiglii et alia active cathartica
medicamenta exhibentur. Actio inflammatoria in hepate non
refrenata sit ita promptè venesectione solâ ut aliae inflammationes
causâ morbidarum secretionum in intestinis, quae gignunt perpet-
uam irritationem vel stimulum in nervosum systema et inde
fovent actionem; purgatio plenaque constans pernecessaria
est in medendo. Medicinae ex antimonio, frenando circulatio-
nem et dirigendo ad cutem sunt utilia auxilia venesectio-
nisque purgationis. Detrahere sanguinem juxta locum cucur-
bitulis vel hirudinibus commendatum est; Sed numquam con-
derentur dum est actioque robur satis justificare ex brachio
detractionem sanguinis. Vesicatoria commendata sunt item ab
primâ origine morbi; Sed non est locus illis, in ullo inflammatorio
morbo, dum actio et constitutionis perturbatio manent, pleno modo;
plerumque prosunt nihil in ulla conditione acutae hepatidis.

Alii prescribunt hydrargyrum initio morbi, et purgare et affi-
cere constitutionem —— actio hujus metalli est sui generis; agit ut
universus stimulator, precipue in glandulis, distincte in hepate
et gignit febrem temporariam; ideirco numquam prescriberetur
in statu nimiae actionis, Sed in conditione media, est valde valens
antiphlogisticum, stimulat vasa debilitata, infarcta organi
inflammati ad actionem sanioremm, ita aequam circulationem
et excitationem et removens congestionem, ex qua pendet inflam-
matio. In plurimis casibus, precipue in regione frigida vel temperata
venesectio, purgatio et antimonium, curationem efficient; sed si
actio non penitus redigeretur, tarda inflammatione remanente et
minante fieri chronica, tum hydrargyrum datum sit in tantum

fficere liviter gingivas. His remediis interdum morbus cedit extemplo, aliis temporibus, reguret diuturniorem assiduitatem medicinarum; Sed credimus ut si actis redigeretur et suppuriretur venesectione, purgationeque aliis antiphlogisticis quod Specíale remedium hydrargyri matura manifestabitur. Quod remediisque nobis invitis, subita invasione rigorum nascente et remissione pulsûs, scimus suppurationem esse, daremus operam sustinere constitutionem, dando cinchonam, acida fossilia que alia tonica, nam tametsi in hoc Statu multum timendum nihilominus est possibilitas terminandi in valetudine.

Hepatitis chronica morbus est interdum obscurus et procedit ita tardè ut fermè vitare attentionem aegroti, nam hepare non valde sensibili organo, tarda inflammatio que mutatio structurae sit procedens, dum aegrotus est, in totum, insciens veri morbi. Causae eaedem quae inducunt acutam, gignunt chronicam hepatidem. Est etiam interdum effectus hepatidis acutae interdum febrium intermittentium vel remittentium male tractatis, interdum usûs prematurè cinchonae sine propriis evacuationibusque reductione in hepare.

Sunt tres conditiones hepatidis chronicae, quae sunt incurabiles; imprimis cum hepar que pulmones affecti sunt tuberculis scrofulosis quae est complicataque desperata conditio morbi; secundo, ex calculis in tubulis hepatis- haec est rara conditio et semper comitata cum dolore perpetuo et pulsu duro; venesectio etiam si ad deliquium, non reducet vel compescet pulsum et nulla quantitas opii sedabit dolorem; tertio, quum inflammatio procedit quantum inducere schirrosam, duratam conditionem cum tota

obstructione circulationis sanguinis rubri per glandulam.
Varia signa quae indicant hepatidem chronicam, ostendunt
lese saepe modo tardoque subdolo; affectiones organorum
mutui consensûs cum hepate, excitant fermè totam aegroti
attentionem. Initium morbi comitatum est plerumque
conditione torpida intestinorum interdum alternans
cum diarrhoea; faeces sunt insalubres visu, saepe albae,
et excrementa non consentanea quantitati cibi recepti.
In hac conditione, cathartica medicinae removendo
accumulationem in intestinis, resolvendo distentionem
viscerum prementium in hepate et detrahendo partem
rivi sanguinis lati a venâ portae ad hepar, prebent
subsidium temporarium Sic tendentes sustentare de-
lusionem aegroti qui plerumque, imputat sensus suos
molestos ad morbos stomachi vel intestinorum. Secretio
bilis est insalubris, complexio pallida vel lurida, oculi crocco col-
-ore, interdum repente ex frigore icterus vel colica biliosa in-
-vadit; stomachus plerumque multum affectus est mutuo in-
-digestionesque comitibus ejus, acrimonia, cardialgiaque inflatione,
dolor in decumbendo in latere sinistra, alternans sensus caloris parti-
-bus in variis, genis, manibus vel pedibus interdum algor vel rigor,
dolor obtusus, profundus cum teneritate regione in hepatis, dolor
in dextro humero vel sub scapula vel in variis partibus, lingua
distinctè tunicata, gustus amarus in ore mane et febricula cum
arida, calida pelle vespère. Caput est plerumque tentatum
dolore, stupore vel vertigine. Urina rubro colore est et saepe gignit
sensum ardentem per urethram in transitu (forte ex bile) et
rubrum sedimentumque tenacem mucum deponit.

Aegrotus fit languidus et macie extenuatus et si antedispositus phthisi ex diathesi scrofulosa capit tussire et sputare secretionem purulentam ex pulmonibus. Mens, etiam ut corpus saepe severè affecta est. Aegrotus effundit querelas de languore quo torpore et est aversus actioni; affectus penitus hypochondriasi. Haemorrhagiae interdum supervenient ex stomacho vel intestinis et aliis partibus. Menorrhagia vel haemorrhoidae crescent saepe obstructionis sanguinis recurrentis per venam portae in hepare. Si signa ad haec vel multa eorum, nam est raro ut omnia sunt in ullo uno casu, sit additus dolor prespicue in epigastrio vel scrobiculo cordis, Completa diagnosis est. Induratio vel amplificatio heparis est interdum ex inflammatione; manu possimus detegere hanc conditionem; quare ad hanc rationem aegrotus sit locatus in positione horizontali cruris flexis in corpore ad relaxandos abdominis musculos.

In dipectione post-mortem, hepar interdum occupatum est abscessibus; interdum hydatides repertae sunt adherentes vel in lobulis heparis; hae productiones morbidae aestimatae sunt animalculi desperati quisque existentiam ejus naturamque vitam. Repertae sunt in omnibus cavis corporis intertectis, membranis serosis, sed saepius in hepare. Pathologia earum videtur minime intelligi; credimus esse productionem inflammationis et non magis ita nominari jure, quam saccum Communis abscessus. Sunt variae in magnitudine, interdum fermè explent cavum abdominis totum, ita facientes quod appellatum est hydrops saccatus. Hepar saepe ostendit colorem varium interdum repertum amplificatumque duratum, interdum molle, interdum minor justo, interdum schirrosum vel tuberculatum

et exhibit similitudinem cartilaginis cum repugnantia cultri
in fine, aspectus morbidi sunt valdi variique multi.

In tractando morbo, chronica hepatide, aegrotus continetur in
domo temperiei moderatae, aut si possit fieri, removetur ad climam
temperatam, causâ vitandi duas res, caloremque miasmata. Quantum
licet, causas omnes nobis removendum sit, et aegrotum cohibendum
ad regimen antiphlogisticum, utendo cibo mitique minime stimu-
lanti, sine ullis liquoribus spirituosis vel fermentatis. Regulae
hae semper exequerentur, nam violatio earum militet ordini
curationis, magna cujus pars constitit in regimine propria aegroti.
Ille debet habere pedes aridasque tepidas, et vestire se lanida
et non exponere se ad frigidum vel humidum aera.
In pluribus fortasse in omnibus, est ulterioratis plerumque
defectibilis secretionis; removere torporem hepatis per necessarium
est in tractando morbo, tum expungare secretiones vitiatas
hepatisque intestinorum, quae perpetuo agunt ut stimulus
nervorum eoque inducentes actionem morbidam cordisque vaso-
rum hepatis, et excitantes inflammationem. Quare purgatio
assidua, moderata, includit unum, magni momenti, ex remediis
utendis; neutri dales sunt preferendi pro hac re. Cum est
multum inflammatoriae actionis utendum est venesectione ac-
commodata actionique viribus aegroti. Hydrargyrum adhibitum
est multum sine discrimine, saepe cum minimo bono, vel
etiam detrimento, sed cum sagacitur datum est magis
certum remedium quam ullo alio. In primis debemus pre-
parare corpus exhibitioni, venesectione, purgatione que antiphlogis
tico regimine &c quum plerumque exhibitio ejus incepteratur
in modo tardo gradatim, sit cura uti formis mitibus ut

billulis, in hoc modo salutares effectus remedii caepe manifesti sunt in stabilibus, in quibus minimus manifestus fuit effectus. Si hydrargyrum gignit salivationem prematuram, ejus effectus boni sunt in modo abortivi; nam stimulus metalli producit actionem, modo secum pugnanti, reductioni inflammationis. Cum parvae quantitates pillulae hydrarg: inducunt effectus alienos in stomacho vel intestinis purgantes &c, utendum est mercurii unguento, etiam hoc purget alios, tum utendum mercurii alibus suffimentis. Eodem tempore tonus organorum pepticorum sit sustentatus, mitibus remediis tonicis. Mineralia acida praecipue nitricum adhibitum est successu, dat tonum stomacho, et putatum est producere omnes bonos effectus hydrargyri. In pluribus casibus est utilis coadjutor et in quibusdam proprius vicarius hydrargyri. In his formis, in quibus, ex idiosyncrasia constitutionis vel scorbutosa vel scrofulosa diathesi, aegrotus non potest uti hydrargyro sine injuria, nitricum acidum sit utile. Interdum praecipue in epidis clinis, hepatitis chronica comitata est multum debilitate ibi nitricum acidum est magis utile quam hydrargyro.

Usus unguenti hydrargyri externe et nitrici acidi interne dicitur esse utile in quibusdam formis. Nitro-muriaticum in forma balnei pro pedibusque cruribus, laudatum est multum à Dr Scott et aliis, interdum producit excitationem et etiam ptyalismum, cum hoc accidit, balneum fiet mitior. Actio ejus salutaris fortasse pendet ex excitando cutem ad salubriorem actionem et consensu, hepar. In fine curatio pendet ex amotione causarum morbi, proprio regimine aegroti, serie purgationis mediocris, adhibita venaesectione cum pulsus requirit, quod solum in clinis temperatisque

rigidis plerumque efficiet curationem, sed in tepidis regionibus
et in obstinatis formis, utendum est nobis hydrargyro, effectus
boni cujus sunt indubitati. In quibusdam obstinatis formis
fortasse permanens ulcus scaturiginis vel vesicationis et contra-
irritatione sit utile. Opiumque vesicatis interdum adhibendae sunt
ad relevandum dolorem occasionalem, sed plerumque venesectio
et purgatio saepe sunt magis utilia remedia.

Dissertation

To the Provost, Trustees &

Medical Faculty of the

University of Maryland.

This Dissertation

on Fever

For A Degree of Doctor of Medicine,

Is presented with due respect,

By

Hugh Mason

of

Fredericksburg

Virginia

1831

An Essay on Fever

Fever is a theme which has at all times been viewed by the most learned of the Medical profession as presenting the most extensive and inviting field for observation, and the display of talent and ingenuity. It is in this department that observation and research have been most industrious in accumulating Materials, and that hypothesis has luxuriated in her wildest exuberance. And indeed, when it is considered that the distroying Angel has made his most desolating visitations, under the form of felrile epidemics: for says Sanswieten, if we except those who perish by a violent death, and such as are extinguished by mere old age, which are few, almost all the rest die either of fever, or diseases accompanied with fever, its paramount importance, must be strongly forced upon our convictions. We read also in Pliny with what fear and trembling the Romans endeavoured to have this universal Malady appeased by their supplications in the temple of Janum. Has not the laudable Zeal of indefat-

igable

igable Philanthropists and Pathologists in their laborate efforts to unmask from its shroud of mystery the nature of fever, received any remuneration from the hand of nature? Has their midnight lamps been allowed to spend itself, & their health to pine, in the praise worthy vocation of relieving the calamities of their fellow creatures, without a ray of probability that their mighty sacrifice will ever be the means of elucidating the pathology of this important disease? Far from it. Although justly indignant heaven has thought proper to punish the wickedness of man with many and direful scourges, still she has endowed him with such powers as by their judicious employment, will not only enable him to alleviate, but almost entirely to subvert the greater part of his woes.

And fortunately for mankind, there has been a complete Revolution in the Science of Medicine within the last fifty years.

The dreams of speculation have vanished, and those vague and hypothetical foundations upon which former doctrines in relation to this subject were constructed discarded, and Physiological

facts

facts, now constitute the only basis upon which the scientific pathologist builds his theories. Hypothesis is no longer tolerated in science. Physiology does not acknowledge her as a legitimate servant. The genius of rational induction is now the only power under whose direction the votary of science presses forward to conquest in the field of knowledge. And we think we can with truth affirm, that although the essential nature of Fever has not been fully unfolded, yet the human mind has been gradually verging towards the point of truth; for there has not been a single theory or doctrine promulgated on this subject, which has not had a tendency to clear away some old rubish, or bring to a fuller view some of the relations of the phenomina it presumed to elucidate. We are also induced to believe from the rapid progress of Medical Science, that the day is not far distant, when the exalted intellectual faculties of some of our brilliant luminaries, will pry into its darkest recesses, and expose to the beams of day its hidden mysteries, which will enable the typo in Medicine to snatch from the sting of death some of its unfortunate victims. When shall the

predictions

predictions of the godlike mind of the immortal Rush, be realized: and then shall the profession merit the stand that the illustrious Horace bestowed upon it, when he places the learned Physician next to the Gods in point of veneration.

What then shall we give as the best and most unobjectionable definition of Fever? and how shall we designate its character? Although there is no complaint so common as fever: none in which mankind, professional or lay, are so little likely to be mistaken: yet there is none which presents more difficulties to the mind of the writer, in his portrait of its most prominent features. For there is not a single symptom which is invariably present, and which can be regarded as absolutely essential to its existence. Febris, says professor Frank, certorum potius morborum umbra quam ipse morbus est. Boerhaave in his endeavours to give a clear and perspicuous survey of fever, proceeds to collect together, from a great number of authors, all the symptoms which have been observed in fevers. He then struck from this list all those symptoms which do not appear in all, but only in

certain

certain modifications of Fever; retaining such only as by the common consent of Authors, and his own observation were found to be present in every instance of fever. By which procedure he left only three symptoms as discriminating marks of its existence, viz a quick pulse, preternatural heat of the surface of the body, and a sense of cold or chilliness in the commencement.

Doctor Gregory in his catalogue of the characteristic features of Fever, by which he says its invasion may always be detected, delineates its incursion in the following manner, to wit, a sudden attack of shivering or rigors followed by a hot skin, a quick pulse, and a feeling of languor and lassitude, with a diminution of all the secretions. Our learned and ingenious professor Doctor Potter reasons with a great deal of plausibility, and strenuousness for the identity of Fever and inflammation. He conceives it to consist of a phlogistic diathesis pervading the whole system: and like the celebrated Good believes every portion of its economy, both mental and physical, to be vitiated by its contaminating presence. He does not

however

however. believe that the various parts of the system are uniformly and equally polluted: but on the contrary sometimes one part is comparatively free, in proportion to the disease of another part. For example. the Liver seems to be the throne of disease in Fevers produced by Marsh Miasm: the Brain by insolation: and the Lungs, by the vicissitudes of temperature, combined with humidity.

We are disposed to adopt the views of our teacher the Professor of Practice, and consider fever as synonamous with inflammation: and also the sentiments of Doctor Eberle, and like him define it to consist of an irritated excitement of the sanguiferous system, essentially connected with a deranged state of the vital properties of this system. This irritated excitement may be produced by any virulent agent acting immediately on the internal surface of the sanguiferous system through the medium of the Respiratory tubes or according to the theory of Broussais, and his enthusiastic Proselytes, conveyed by Sympathy to this system, from a primary focus of irritation located in the

in the mucous membrane of the alimentary canal. For although we are opposed to the Gastric doctrine, when champions contend that every irritation which can generate a fever, must act by conveying the sensation from the irritated spot to the sensorium commune, and from thence be reflected to the mucous Membrane investing the internal surface of the stomach and bowels, thereby making those parts the fons et origo of all febrile phenomina: still we do not hesitate to believe that Fever may be excited by Radiation, from an inflammation primarily and solely seated in the Intestinal Canal: produced not by swallowing Marsh effluvia as Broussais and his advocates contend for, but the consequence of vitiated ingesta, or some other acrimonious substance irritating those parts.

According to the mode of the development of Fevers, Pathologists of the present day, have made two divisions, viz Idiopathic and Symptomatic, and the propriety or impropriety of this classification now constitutes one of the most important and warmly

contested

contested subjects in Pathology. In the Idiopathic genus of Fevers, we include those fevers which are developed, and sustained by causes, which produce a general morbid state of the system, independent of a local Inflammation, or fixed irritation in some part of the system. Those who argue for the existence of such Fevers, suppose that the deleterious excitant produces its pernicious impression on the sentient extremities of the Lungs; deranging function after function according to the catenation of organic sympathies: or as they presume, the remote cause may gradually deteriorate the healthy character of the circulating blood, which, acting as a morbific irritant on the Heart and arteries, will give rise to a state of general disease, characterised by the Ordinary Phenomena of Fever.

Many highly eminent Pathologists who style themselves the advocates of the "Physiological Doctrine of Fever" (for that is the appellation by which they term their conceited brilliant theory) contend that such Fevers can have no existence but in the imagination of

nation of visionary theorists: and that all febrile excitement is purely symptomatic, and of course essentially and wholly dependent (as I precedingly stated) on a praeestablished local irritation or inflammation. The zealous desciples of this New doctrine, endeavour to support their sentiments in relation to this subject, both by the appearances which are detected on post mortem examinations, and by arguments founded on physiological principles. They affirm that evidences of inflammation occur universally in the mucous membrane of the Alimentary Canal, in subjects that die of febrile affections. They state that the Capillary vessels to a greater or less extent, of this membrane, are always found injected with blood, and in many instances these and less equivocal traces of previous inflammation are found on dissection. Admitting that such manifestations of inflammation are as unequivocal & universal as they are reported to be, is there not reason to conclude that inflammation thus detected, supervenes during the course of the disease, and is the consequence of Fever, rather than the Cause? For when we consider that

in all

in all Febrile Maladies, the Secretions which are poured into the intestinal tube are unnatural and vitiated: that the process of digestion is suspended, and consequently that fermentation and decomposition of the contents of the stomach and bowels are particularly promoted: is there any reason to be surprised at so often meeting with traces of inflammation in the digestive Organs of those who perish from the ravages of Febrile affections. Another Valid argument against the inferences which they have deduced from post Mortem dissections, is that it has been fully demonstrated by the observations of Mr Bellowly and Mr Seeds that the redness or injected state of the Mucous membrane, is frequently the result of changes effected in Articulo mortis, or post mortem. I have several times been present at the examination of bodies, says the former of these writers, where the vascularity of the Villous coat of the stomach was so considerable as even to give rise to the suspicion that something poisonous had been taken into the stomach.

stomach. I was therefore induced to embrace frequent opportunities of viewing the inner surface of the stomach, and so often found in it the appearances alluded to, as to induce me to imagine that the opinion which is commonly entertained of their being marks of disease, is not well founded. I therefore examined with great minuteness the bodies of those criminals who were executed apparently in perfect health, and the same phenomena evinced themselves, as the Broussaians declare to be pathognomonic to signs of fever." Mr Reid too asserts that in animals bled to death, he found the membranous structures frequently exhibiting a state of engorgement, from which it is very difficult to discriminate inflammation at first sight." We find also in Bichat Matchless treatise on General Anatomy, the truth of those experiments lucidly proved by Physiological arguments and Anatomical demonstrations.

With respect to the Therapeutical department of Fever, we have very little to say; for we conceive that the

that the rigid Broussaian mode of treating this disease must appear to the mind of the enlightened Physician so glaringly adverse to the dictates of common sense, as well as post-Mortem disclosures, that a long detail of refuting matter would be as tedious to the Perusor, as it would be laborious to the compiler. Indeed nothing can account for the frantic enthusiasm with which some of our most distinguished fraternity have advocated this chimerical hypothesis, but the refulgent garb in which the transcendent intellect of its fabricator introduced it to the world. And we think the remark of Doctor Potter when refuting the splendid but fallacious Brunonian doctrine may be here applied with peculiar felicity, that if we admit his premises his corollaries are irresistable. Who, unless enraptured by the splendour of Mental ingineuity, would Pretend to argue for the withholding of a laxative, where there was evident indications of a vitiated congestion of the intestinal tube, under the apprehension of its causing injurious irritation, and allow at the same time, the putrid and most foul substances to lie quietly in the bowels without

a moments

a moments anxiety? Or who unless blind to every thing like reason, would contend for the application of a few leaches and simple diluent drinks, as the most potent remedials means for that distructive Malady Yellow Fever, the maximum form of our Remittent Bilious Fevers —

The rules then by which we shall be governed in our Medical Career, if we are so fortunate as ever to merit an initiation to that learned body, are those which we have derived from the lectures of our Much Respected Preceptor Doctor Potter. He has taught us to regulate our curative treatment according to existing circumstances; to throw off the shackles of nozological distinctions, when called to treat a disease of great acuteness; and to follow the dictates of a judgement based upon a foundation of adamantine strength. The principle points upon which his doctrine rests: (which doctrine may with truth be said to have bid defiance to the concentrated talents of the whole Philadelphia Faculty of Physick, without the slightest breach of continuity) are first, not to be intimidated by the great "bug bear" debility, but to pursue the most energetic mode

of depletion

depletion, when we are combatting with a disease of such high action as perspicuously to show that the vital principle must soon be extinguished without the assistance of Medical interposition. Then we may use the Lancet both generally and topically with active Cathartics, and such other means as we deem to be indicated by the peculiar Modification of the disease.

Relative to the selection of particular Cathartics, in the different forms of Fevers: we consider, when there is no particular visceral obstruction the neutral salts to be the most eligible but when the Liver is especially implicated, we would prefer the Mercurial Preparations; and when the disease has fixed itself principally On the Lungs, or any other organ primarily essential to life, such as the stomach, heart or the brain the great empire of the vital principle, the Lancet is our sheet anchor the Remedium Magnum. Indeed, as well might we expect to dislodge the fortress of Gibraltar, by cannonading it with Mustard seed, as to cure Apoplexy by three or four Leeches applied to the Head and Stomach

mach: with potations of Gum arabic water, and abstemious diet, as the Gastric Pathologists promulgate.

We almost consider it useless, but for the sake of complying with formality, we will conclude our feeble dissertation for a degree of Doctor of Medicine, by stating to this honourable Faculty, which we now have the honor of addressing, what they must have known well before that it is impossible for a student in the limited period which is usually allotted him, previous to his practical Career, to advance any Original theory worthy of their attention. We therefore have not contested for the palm of originality, but have contented ourselves with endeavouring to get a clear idea of the views of others, and to present them in this Essay. If we have succeeded sufficiently well to entitle it to a passport, and respect, we are pleased.

An

Inaugural Dissertation

on

Dysentery

Submitted to the examination of the
Provost, Medical Faculty, and Trustees
of the
University of Maryland
for the Degree
of
Doctor of Medicine
by
Aaron B. Hardcastle of Maryland

March 10th 1831

Dysentery has been long known to the Medical world and like any other diseases has given rise to various conjectures relative to its causes, its Pathology and consequently its method of cure. It would be both idle and useless for me to attempt giving the various opinions that have been advanced by different Medical gentleman. but shall confine my observations principally to the disease itself. endeavouring as much as possible to avoid speculating on this subject.

This disease is chiefly confined to hot climates and has therefore been justly ranked as a disease having heat for its remote cause. Within the tropics thousands fall victims to this enimy of the human race. while those of the north are perfectly free from it.

Among the most common of its exciting causes. are the night dews of hot climates. giving a sudden check to perspiration. the sudden vicissitude of temperature. causing the blood to recede from the surface of the body to the internal organs. and thus giving rise to the disease. Aliments introduced into the stomach such as putrid vegitables. or Animal Matter has in many instances given rise to it. A remarkable instance of this kind occured to the United States troops stationed

the City of Batt. the soldiers were fed on putrid beef. the eating of which brought on the disease. and as soon as it was scoured and the diet changed to good salted bacon the disease disappeared.

The Proximate cause of this disease is an inflamation of the mucous membrane of the intestines. the Morbid appearances which present themselves after death leads to the same conclusion. Dysentery was thought by the distinguished Cullen to be contagious. whether this observation was founded on his observance of the disease or not, I am unable to say. but certain it is, he is opposed by men of the most distinguished talents in the Profession. among them is Dr Johnson. who says.

"Neither dysentery itself nor its attendants. symptomatic fever. is contagious. Not one of the academic teachers who confidently state its contagious nature. could adduce a single proof. from their own experience. of its being so. says he I have witnessed the disease. on a large scale. in the east. and in the west. in the north and in the south in fleets and in camps - in private and in public practice and not a single instance. or even indication of contagion have I ever seen."

tery may be dibided into the acute or inflamitory. and where of a low Typhoid nature. The acute form of this disease is ally ushered in with considerable fever. sometimens ushered by a cold stage at other times without it. the fever generally ns high for several hours. before there appears to be any local isease. showing conclusively that the whole system is first ffected and the local disease is determined by the accidental predisposition in some particular organ. as the intestines. lungs. &c Hence the same causes which in one person will duce dysentery. may in a second cause hepatitis. in a third enteritis. in a fourth pneumonia according to the nerians weakness of this or that viscera.

The symptoms of acute dysentery are generally ushered in with violence and rapidity the griping will be severe. the urgency to stool frequent. the tenesmus very distressing. frequently in a few hours after the attack. Nothing however is evacuated. by all this straining but mucous. tinged with blood. or purulent matter as the patients bowels may have been previously loaded. After this there is more or less blood. from a few streaks. in the mucous. up to the quantities the most alarming. the patient has now no rest.

day or by night. After sitting straining a long time on the
commode he has scarcely left it and returned to bed before a
trembling sensation or an acute pain is felt in the abdomen.
immediately followed by the most irresistable inclination to
stool. The patient is convinced he is ready to evacuate
large quantities of burning fees. each time he sits down. and
is quite astonished at finding that all his efforts have only
produced a trifling quantity of mucus. or pure blood. In this
form the urine is high coloured. scanty and passed.—
occasionly. both with pain and difficulty. The symptoms
are all exasperated and delirium is not uncommon. when
the fever runs high. if this violent or acute form be not checked
before the third day. especially in hot climates where the disease
is principally met with. there will be great danger of disorgan-
ization of the intestines. or other abdominal viscous. from the
effects of inflamation. The structural derangements are
abscess. ulceration or Mortification. all of which terminations
are but too frequently witnessed by the Physician.

The formation of abscess is known by the rigors and cold
chills. alternated with flushings and hectic perspirations.
which accompany all abscesses of an internal organ.

rtification may be suspected when the patient after great pain
d fever. expresses himself suddenly relieved. and thanks God
will now soon recover. while at the same time; the countenance
inks the pulse falls. and becomes weak irregular or intermitting
nd the extremities and forehead are covered with cold clammy
weats. the vital flame is now flickering and nature no longer
able to contend with this monster. sinks to rise no more.

The Sub acute variety of dysentery differs in no essential
point from the preceding form except in degree. The Pyrexial
symptoms will be so mild as sometimes to pass unnoticed
by the Medical attendant. though there will always be
more or less febrile movements in the system if the patient be
minutely examined. There may be no preternatural heat on
the skin. and the pulse may be not much accellerated. yet it
will be easily seen that the balance of the circulation. and
excitability is disturbed. that several of the functions. especially
those of the skin. are impaired. and the animal powers are
diminished. It will also be observed. that towards evening
there is a feverish state of the system as well as an
aggravation of the local symptoms. In this variety. the
stools will not be near so frequent as in the acute form

nor will the tormina and tenesmus be so distressing: the flow of blood will be nothing compared to what it is in the other case. The number of stools will vary from six to eight. to fifteen or twenty in the twenty four hours. whereas. in the acute dysentery there will often be from thirty to forty stools in the same time.

In the acute form there is generally pain on pressure being made on the Umbilical region. and if the inflamation reach to the peritoneal covering of the intestines. there will be constant pain in the abdomen. greatly increased of course during the straining and tormina at stool. In the subacute form. there is very little tenderness of the abdomen when pressed and after each stool there is an interval of ease. In both the forms it may be said that the natural feces are retained except when purgative medicines are exhibited and then they are mixed with other morbid secretions

In addition to these there is a chronic state of of dysentery depending on a deranged state of the liver and here we must unlock the secretions by giving calomel. and thus restoring this important viscous to a healthy action.

Prognosis. Cases in which the stools consist almost entirely of blood more under the government of the Physician than when the discharges are principally mucous.

Colliquative diarrhœa at an advanced period of the disease is to be regarded as unfavourable. and where they are of a penatrating and cadaverous odour. is also an unfavourable symptom. indeed it is regarded by some as one of the most unfavourable signs that present themselves. Where the pulse is frequent and intermitting. with a sudden and highly marked cadaverous countenance. joined with. hiccough. and cold extremities. these indicate that the dissolution of the patient is near at hand.

While on the contrary if the afflicted sufferer begins to pass his stools mixed with bile. and they becoming of a natural aspect. we should certainly infer that there would be a favourable termination of the disease yet we should be extremely cautious in making up our opinions for with all those marks to direct us too often the Physician must confess he has been deceived in the nature of the disease.

This disease is sometimes mistaken for hemorhoides. though we may in general distinguish it. by the first discharges in dysentery being bloody. and if there are any feculent evacuations they are generally preceded by. bloody stools. if the disease be hemorhoids the evacuations are first fecal and then succeed the gush of blood. in hemorhoides tumors may generally be discovered in the vicinity of the rectum. and another distinguishing mark is that in dysentery there is fever. in the other there is none. it may also be mistaken for diarreah. but it may always be known from diarreah. by the tenesmus and bloody stools and also by the general fever which is always a characteristic of dysentery.

The Morbid appearances which present themselves on dissection in very severe and protracted dysenteries. will be found the inner membrane of the great intestines thickened and formed into small irregular tubercles of a white or yellowish colour. with thickening of the peritoneal and muscular coats. In some instances. patches of the membrane has been observed in a state of high inflamation. and in general the colon and rectum. exhibit much stronger marks of disease than the other

than the other portions of the intestines.

Very frequently. the mucous membrane of the colon and rectum is found ulcerated. thickened. soft and pulpy. This appearance has been often seen to extend to the small intestines.

In tropical climates where the disease has been epidemic very frequently the Colon has been found sometimes found decidedly in a state of mortification. ulceration has taken place and the feces have been found to have escaped from the cavity of the gut into the abdomen.

The liver is frequently found to have suffered structural derangement it is most commonly enlarged and in a state of great sanguineous congestion. and associated with these marks peritoneal inflamation are not unfrequently united. with these remarks we will proceed to the treatment.

First it seems in this as it is in many other diseases alt. . to give one plan of treatment. since in one case one set of symptoms will predominate and in another. there will perhaps be the reverse. each of course requiring a correspondg modification of treatment. The great object then is to point out the proper indications. that shall enable us

know and appreciate the relative importance of the means of cure.

The first or fundamental, is to take off that evident determination of blood to the intestinal canal, together with the unnatural state of irritation which exists there. And this is principally if not solely effected by the the restoration of those functions which observation shews to be deranged. particularly the functions of the skin & liver.

But in fulfilling these indications we are under the necessity of keeping a strict watch on the operations of nature and varieties of the disease. lest serious injury be done in the mean time. Thus in the symptomatic fever in dysentery and indeed in all other diseases. there appears to be sanative effort of the constitution to expel some morbid impression. to restore some impeded function. or to relieve some labouring organ. But here Nature is neither Omnipotent nor Omnipresent. her efforts are sometimes too weak. and they are sometimes too violent. in one case requiring the spur. and in the other the bridle. In assisting her or restraining the operations of Nature. lies the whole skill. and indeed I like to

have said the success of the practitioner. and it really
was evident to my mind. that he who studies her ways and
means the most attentively will be the most fortunate and
successful Physician. The principle then is which should
govern us. is the restoration of the equilibrium of the circulation
and excitability with the healthy perspirations and billiary
secretions. To effect these desirable ends, we must combine
medicines of different kinds. For instance. Mercurials
to act on the secretions of the liver. antimony or. ipecac.
to act on the functions of the skin. and Opium to allay
inordinate irritability in the intestinal canal.

But should the practitioner be called to the bedside of
a patient. where beside the local symptoms of purging
griping and tenesmus and very high fever or considerable
discharges of blood from the bowels. or fixed pain in
some part of the abdomen. or all three combined then
you must guard against the great danger of disorganization
by general and local blood letting. proportioned to the
urgency of the case. by fomentations to the abdomen
externally. and by emollient glysters internally.

By these means you will lessen the general

excitement and local inflamation. after which you are to proceed with the cure in the following manner. Where the disease is marked by high inflamatory excitement your principle remidy is in the lancet. and frequently the disease may be cured by this remidy alone. but combined with the remidies that we shall afterwards name. we can stop the progress of this disease with ease and safety to the patient.

But when the liver is concerned we must look to other remidies and a prescription that has been used with the most decide advantage is the following.

Cal. or Sub. Murias. Hyd. 1 gr
Opium — 1 gr
Pulvis Antimonialis 2 gr.

one of these pills to be given every six hours. the patient to be confined to a warm room. or if in the winter time to the bed and to be kept as quiet and tranquil as possible and to resist the propensity as much as is in his power. Flannel is to be put on next the skin and the lightest food. as rice. gruel. sago. tapioca. panada. or the like to be prescribed. Most practitioners begin with a purgative of neutral salts. as the preliminary.

step. giving an anodyne afterwards at bed time. but this alternation of cathartics. has in the hands of many practitioners proved to be very tedious painful and even unsuccessful in the cure of this disease. Particular attention should be paid to keep the bowels soluble. and here a mild laxative or Castor Oil. or neutral salts with manna will answer the indication very well. These will have the effect of carrying away the scybala. or hardened feces accumulated in the cells or flexures of the colon. if these should be present which frequently are nothing can be of more benefit.

The daily use of the laxatives should never interrupt the progress or exhibition of the principal remedies. since it is to be considered as only an auxiliary. Though by many the purgative plan is held as the paramount remedial measure in this disease. a plan of treatment certainly to be condemned very valuable lives have fallen a sacrifice to such measures.

In the course of two to four days you will in a majority of cases precive a mitigation of the symptoms though this favourable change may not take place until the mouth becomes affected with Mercury.

But when the disease runs into a low stage and typhus symptoms supervene, such as fainting, stupor, heaviness, gastly expression and delirium, with discharges from the mouth of green bile, watchfulness and headache are often the first symptoms, more decided marks of debility appear, the voice becomes weak, the tongue and teeth brown or black excessively copious or very slight stools, with great pain or none at all in the bowels, the stools of various colours, mucous, watery, dark, green, black or serous, The pulse low depressed and intermitting, with the other symptoms of typhus fever, as picking of the bed clothes, cold extremities, hippocratic face, When these or even part of them appear you must resort to stimuli as in typhus for here cathartics or Venesection would prostrate the patient so much that it would forever place him beyon the skill of the best Physicians,

First then in this typhus form commence with an emetic such as antimony or Ipicac, assisting its opperation by chamamile or Eupatorium tea, the bowels are then to be opened and the purging to be regulated by the debility of the patient, gentle purgatives followed by tonicks will be the most safe and after their opperation, sodorifics will be found to be valuable, The evacuations should always be sufficiently free

to discharge the contents of the bowels of any unnatural collection of matter. at the same time guarding against the weakness by giving a dose of laudanum with chalk or some astringent as Kino after every stool. The system must be supported by soup. panada. made with good wine. The volatile alkali and wine whey camphor in small doses. also. cinamon. pepper. allspice. cloves. are valuable stimulants in this disease. astringents where the stools are copious are indispensable. Blisters applied to the legs often are useful in the last stages. The sulphate of quinine. snake root. and musk will be found to be valuable. &c.

The warm bath has also been considered to be valuable in this disease and when properly used not doubt but what it constitutes one of our best auxilliary remidies.

Glysters has been much praised by some while on the other hand has been censured by others. should they be used they should be of the most bland and unirritating. such as starch or mutton broth and laudanum. These if they can be retained will not irritate and they may soothe the tenesmus.

The flannel roller round the abdomen. which gives a very comfortable support and warmth to the viscera. is beneficial

Sappingtons pill has been much spoken of as a specific in this disease. but it is only applicable in the mild forms of the disease and in those cases of the sub acute kind certainly it constitutes a valuable remidy. it is composed of the Glass of Antimony ½ gr. Sapo Castilium ℈. Sanguinis Draconis ½ gr. made into one pill to be given as often as is necessary.

Flannel should be worn next the skin and the patient during convalescence should take gentle excercise.

With regard to the prevention of the disease. every thing heating and stimulating should be avoided during its prevalence exposure to the night air. and in short avoiding all those causes which give rise to the disease. and let the patient guard against those depressing passions such as fear and grief.

The diet of the patient should be the lightest and most bland such as rice. sago. arrow root. tapioca. and if the bowels become affected with looseness lime water and milk will be found valuable flour boiled with milk and sugar is also a valuable diet. and during convalescence the patient may take a little brandy and water. or what is still better. good old Madeira Wine.

An

Inaugural Dissertation.

On

Cholera Infantum.

Submitted to the Examination,

Of the

Provost, Trustees, and Medical Faculty,

of the

University of Maryland.

For the Degree of Doctor of Medicine,

By

John S Lewis.

of

Richmond.

Virginia.

March 1831.

To

James D. McCaw M.D.

Sir

The gratitude I feel and always have felt towards you for your attention and kindness to me while engaged under your guardian care in the arduous paths of Medical Science, can indeed be but feebly expressed in dedicating the following pages to you; but confidently trusting that you will not measure the gratitude, for your numerous acts of kindness and solicitude in my welfare, by the merits of the offering in which they are acknowledged, but rather by the truth and sincerity of the Dedication, by which I am enabled to express

My respect for your talents,
esteem for your virtues,
and wishes for your happiness

John D. Lewis

Richmond, March, 1831

On

Cholera Infantum.

The cholera of infants differs in several essential points from the ordinary cholera of adults. It is almost always distinctly febrile, and very frequently commences in a gradual manner with more or less diarrhœa of several days continuance before the vomiting supervenes. It is also particularly liable to become protracted in its duration, or to assume a chronic form, a circumstance which is scarcely ever noticed in the other varieties of the disease. The liver appears to be as inactive in this as in the preceding form of cholera; for when once fully developed, the evacuations during the early period of the disease, are wholly devoid of any appearances of bilious matter, consisting either of a whitish frothy, or of a watery and almost colourless fluid. If the disease does not rapidly exhaust

Ans

Cholera Infantum.

the vital powers and terminate fatally during the first few days, the patient begins to emaciate; the extremities become cold; the head and surface of the abdomen extremely warm; the skin dry and harsh; the countenance pale and shrunk; the eyes dull and sunk; and the pulse small, irritable, and frequent. If the disease is not vanquished by proper remedial measures, the little patient by degrees becomes somnolent; he sleeps with the eyes half open, rolls about his head when awake, and at last sinks into a state of insensibility and coma, and dies under symptoms resembling those of the last stage of hydrocephalus. When the disease is very protracted in its course, aptha usually appear on the tongue and inside of the cheeks; the face acquires an edematus appearance; the alvine discharges become so acrid as to excoriate the parts about the anus; and towards the fatal conclusion spots of effused blood under the cuticle sometimes appear on various parts of the body.

The duration of this variety of Cholera is exceeding various. It may prove fatal in five or six hours, or continue for several weeks, and even months,

until the body is reduced to a state of extreme emaciation, and yet terminate favourably. The majority of deaths take place before the termination of the ninth day.

When death takes place early in violent and rapid cases, the liver and mucous membrane of the alimentary canal are found, on dissection, very much engorged with blood; and where the disease had continued for some length of time before death, ulceration and even abrasion of the lining membrane of the stomach and bowels, are usually discovered.

The etiology of the cholera of infants differs in some important circumstances from that of the ordinary form of the disease in adults. Both these varieties of cholera are almost exclusively confined to the hot months of the year; but cholera infantum is vastly more prevalent in large and crowded cities than in the country—a circumstance which does not obtain in relation to the cholera of adults. Again, cholera infantum occurs almost exclusively during the third and twenty fourth months of age; in other words, during the period when the process of primary dentition is going

on. There are, therefore, three causes whose concomitant influence is extremely concerned in the production of this variety of Cholera, namely, high atmospheric heat; the contaminated air of crowded cities; and the irritation produced by dentition. From the great prevalence of this disease during the hot months of summer in the more filthy parts of crowded cities, it has been supposed that it is of malarious origin, and a mere variety of the bilious fever of our climate, the force of which is turned inwards on the stomach and bowels. In support of this sentiment, it has been alleged by Condie, that though seldom met with in salubrious districts of the country, a majority of the children fall victims to Cholera infantum in the neighbourhood of marshes, or in low, wet, and otherwise unhealthy situations. This, I apprehend, will not be confirmed by the observations of those who practice in the neighbourhood of paludal districts. Unquestionably, Cholera is much more common, both in infants and adults, in such localities, than in the salubrious parts of the country, and there is no doubt in my mind, that miasmata have a considerable tendency to favour the occurrence of

cholera, whether in adults or in infancy. If, however, koino-miasmata be the principle agent concerned in the production of this malady, why is the disease so exclusively confined to a particular period of infancy in our cities? And why, we may further ask, does it commence so early as the latter part of the month of June, and usually acquire its most extensive sway in July, before the ordinary paludal diseases are wont to make their appearance, except here or there perhaps a few instances?

High atmospheric temperature and the irritation of dentition appear to be the principle remote causes of this affection. But as these causes very seldom produce cholera in infants enjoying the pure air of the country, there must be some other circumstance peculiar to populous cities which especially favours their tendency to develope this disease. This accessary or predisposing cause consist probably in the impure air of the city in which the disease occurs, by which the infantile system is rendered irritable and peculiarly predisposed to suffer disturbance from the irritation of dentition.

It seems to me highly probable that increased

sensibility and irritability of the brain, caused by the irritation of difficult dentition in the peculiarly irritable habit of body just mentioned, is frequently deeply concerned in the production of this malady. Throughout the whole course of the disease, the head is always preternaturally warm — and in most instances the child is peculiarly restless and fretful some days previous to the accession of the disease. The tendency of cerebral irritation to cause inordinate irritability of the stomach and bowels is well known. Diarrhœa is a very common, and in general a salutary occurrence during the process of painful dentition. In the commencement of hydrocephalus, great gastric irritability and frequent vomiting is very rarely absent. In concussion of the brain vomiting is often a very troublesome symptom; and sea-sickness, which is often so violent as to resemble cholera, appears to depend entirely on the peculiar cerebral excitement occasioned by the swinging or rocking motion of a vessel at sea.

The great tendency of cholera infantum, in its Chronic form, to terminate in a state of cerebral oppression and coma, seems also to show that the brain is especially predisposed to inflammation, or to that

peculiar morbid condition which constitutes what is usually called acute hydrocephalus.

We may, therefore, presume that in the irritable condition of the system, produced by the influence of a very warm and contaminated atmosphere, dentition causes more or less cerebral irritation, which being reflected on the stomach and bowels, renders them preternaturally irritable. If in this state of the alimentary canal, the cutaneous exhalents are over-excited and debilitated by high atmospheric temperature, the slightest reduction of temperature, a current of fresh air, or damp night air, will readily cause a sudden torpor of these emunctories. The blood will retreat from the surface to the internal organs, and give rise to engorgement of the vessels of the liver and mucous membrane of the bowels, by which the gastro-intestinal irritability will be still further increased, and the characteristic symptoms of the disease excited.

Treatment

Although the morbid condition of the liver and alimentary canal in cholera infantum does not appear to differ from that of the cholera of adults, yet the treatment proper in the former, differs in several very essential points from that which is best calculated for the removal of the latter variety of the disease. Besides the indications for the treatment of ordinary cholera, we have, in the present variety, the important one of obviating irritation and sanguineous congestion of the brain; and hence opium, which is decidedly the most valuable remedy in the cholera of adults, cannot be employed without great hazard of doing mischief in the cholera of infants. Some practitioners, under an idea that the stomach contains offending matter which spontaneous vomiting is incapable of throwing off, commence the treatment with the exhibition of a gentle emetic, but this practice is not only found-

-ed on an erroneous view of the pathological condition of the alimentary canal, but what is still more to the purpose, it is generally decidedly injurious.

From what was said above in relation to the pathology of this affection, it would appear that torpor of the liver and skin, in connexion with cerebral irritation, constitutes the immediate cause of the excessive irritability of the stomach and bowels. Our principal object therefore must be, to restore these two functions; to obviate irritation and sanguineous congestion in the brain; and to determine the blood from the engorged vessels of the liver and mucous membrane of the alimentary canal. To answer these indications, we should generally commence the treatment with the application of leeches to the temples, the exhibition of minute portions of calomel and ipecacuanha, and a large stimulating poultice over the abdomen, and likewise blisters behind the ears, or on the back of the neck.

Where the pulse is irritated and the head very warm, leeching at the temples or behind the ears is particularly indicated, and we are told

will seldom fail to procure very manifest relief. With the view of moderating the gastro-intestinal irritation, and of stimulating the action of the liver, minute portions of calomel and ipecacuanha constitute, the most valuable internal remedy we posess for combating this disease. From one-sixth to a quarter of a grain of calomel in union with half a grain of ipecacuanha, should be given every hour or two, and continued until the evacuations become mixed with bilious matter. Let it be borne in mind, that so long as the liver remains torpid and the alvine discharges free from bilious matter, the disease may be regarded still posessing all its violence and dangerous tendency, whatever temporary abatement may occur in the severity of the vomiting and purging. The appearance of bile in the stools, whether dark or green, is always to be hailed as a very favourable sign, and the sooner the liver can be brought to resume its secretory action, the greater in general will be the probability of ultimate success in our attempts to subdue the disease.

Ipecacuanha in small doses is a most excellent

auxiliary to the calomel, in affections attended with morbid irritability and excessive peristaltic action of the alimentary canal. Its tendency to counteract inordinate action of the bowels when given in small doses, is well known; and its tendency also to excite diaphoresis, still further enhances its applicability to this and other similar intestinal affections. Where from a tumid and tense state of the abdomen there is reason to presume that the bowels are loaded with fecal matter, the quantity of calomel at each dose should be larger, so as to procure its purgative operation. Dr Edward Miller appears to have been the first physician who particularly recommended minute doses of calomel in Cholera infantum; and under judicious management it appears unquestionably a very valuable remedy in this affection. Except under the circumstances just mentioned—namely, a loaded state of the bowels, purgatives are not, in general, advisable in the commencement of the disease. Where the disease continues, however, until the liver under the exciting influence of the calomel pours out a large quantity of bile, mild laxatives are highly useful. Where the disease comes on gradually, and proceeds slow-

ly, it may perhaps be better to commence at once with purgative doses of calomel, than with the minute alterative portions mentioned above. In cases of this kind the bowels are frequentty much loaded by fecal matter, which it is of much importance to evacuate as speedily and completely as can be done without resorting to the more active or irritating purgatives.

At the same time that the means already indicated are employed, external revulsive applications to the abdomen, more especially to the epigastrium and right hypochondriac region should be used. Blistering the region of the stomach is one of the most efficient applications of this kind in the present affection. Before the blister is applied, the part should be slightly bathed with spirits of turpentine in order to procure vesication as speedily as possible. As soon as the skin is uniformly inflamed, which occurs generally in about four hours, and sometimes much sooner, the blister should be removed and an emollient poultice applied over the whole abdomen, including of course the inflamed surface. This will in a short time excite the inflamed vessels to pour out a copious quantity of se=

rum under the cuticle, and form a large blister, which should then be opened and dressed with fresh mercurial ointment. Where the general habit is phlogistic and the pulse manifestly febrile, leeching both from the head and the region of the liver are important preliminaries to the employment of vesicatories.

The warm bath is also an excellent auxiliary in the treatment of this disease; and this measure is more especially necessary when the skin is very dry and harsh, and the pulse quick and tense. While the patient is immersed in warm water up to the neck, it will be proper to apply a napkin wet with cold water to the head. Various other external applications to the abdomen have been recommended, for the purpose of moderating the gastro-intestinal irritability of this affection. Rubefacient embrocations and cataplasms, made of stimulating herbs and spices, may be beneficially applied to the abdomen; and where the disease is violent and rapid in its progress, recourse should be had to the most prompt and active arti-

cles of this kind—such as spirits of turpentine, and even dilute nitric acid.

I have already stated as a general rule, that the use of opium is highly improper in this affection. The great tendency to congestion and inflammatory action of the brain in this species of cholera, renders all medicines of this kind decidedly prejudicial, when given in the early period of the disease, or where in its advanced stage symptoms of cerebral oppression are manifestly present. Nevertheless, where the disease assumes a chronic form, and the patient is very restless and wakeful, with a dry, harsh, and withered state of the skin, and no particular marks of cerebral congestion, small doses of Dovers powders, in union with minute portions of calomel, say half a grain of the former with the sixth of a grain of the latter with the addition of two grains of magnesia, given every two hours, to a child under two years old, will sometimes produce very excellent effects.

With regard to the astringent and absorb-

ent remedies, formerly so much employed in the treatment of this affection, we can scarcely express too strong a sentence of condemnation against their use in the acute form or stage of this malady. Where the disease becomes chronic, or continues rather in the form of chronic diarrhoea than of cholera, the milder astringents may occasionally do some good. Thus, a decoction of the root of the geranium maculatum in milk may procure considerable advantage, or we might use it in combination with calomel, in the proportion of six grains of the former to one-sixth of a grain of the latter. The employment of unirritating tonics in the chronic form of the disease attended with great debility and relaxation, is much better calculated to afford relief than the use of astringents and absorbents, such as the tartrate of iron in solution. Forty grains of this preparation may be dissolved in two ounces of water, to which half an ounce of the lemon syrup is to be added. Of this from thirty to forty drops may be given to an infant four or five times daily.

When from the violence and rapidity of the disease, or its long continuance, the exhaustion becomes very great, the extremities cold, and the pulse very small

and feeble, internal as well as external stimulants become necessary. Under such circumstances, stimulating frictions together with the internal use of wine-whey, or a weak solution of the carbonate of ammonia, are indispensable to support the sinking energies of the system.

To relieve the colic pains which are likely to occur from flatulent distention of the bowels in the advanced periods of chronic cholera infantum, a few drops of the spirits of turpentine, or the oil of juniper may be used with advantage.

Proper regulation of the diet must be particularly attended to throughout the whole course of the disease. If the child is weaned, nothing but the blandest liquid articles of food must be allowed. Boiled milk; preparations of arrow root, tapioca, sago, and rice; thin oat meal gruel, barley decoction, or a solution of gum arabic, are the best articles of food and drink in every stage of cholera infantum. In chronic cholera infantum, the appetite sometimes suddenly begins to crave for certain strong and stimulating articles of food, such as salted herring or shad; old

bacon; salted beef, &c, whilst the stomach loathes all of the lighter and unirritating articles of nourishment enumerated above. When this occurs, it will be proper cautiously to gratify the newly awakened appetite, however opposed to the ordinary dietetic rules the indulgence may appear to be.

"I have seen many children recover, says Dr Rush, from being gratified in an inclination to eat salted fish, and the different kinds of salted meat. In some instances they evince an appetite for butter, and the richest gravies of roasted meat, and eat them with obvious relief to all their symptoms."

Nothing contributes more to the removal of this disease than the enjoyment of the pure air of the country. Therefore, whenever it is practicable, the little patient ought to be immediate removed into the country; for this change is often sufficient in recent cases to remove the disease in a very short time, without any other remedy. If the circumstances do not admit of a removal to the country, some advantage may be gained

by carrying the patients about in the open air; and still more by frequent rides into the country in an open carriage. The best substitute for the air of the country, is the air of the upper stories of the buildings in large cities. It is probable that the deleterious matter which contaminates the atmosphere does not rise to a greater elevation — it does not, perhaps, ascend above the second story of a common city dwelling. The health of children, then, may be, in no inconsiderable degree, secured, by using as a nursery, during the summer season, a large well ventilated third story room.

As preventive measures, gestation, a residence in the country; the avoidance of cool night air after a warm day, and all kinds of fruit; nourishment at the breast during the process of dentition, or where this is rendered impracticable, a very light liquid diet — particularly milk, and a thin preparation of arrow root, with beef tea or weak chicken broth, cold bathing, and lancing gums as soon as they become swollen by the protruding tooth, are the most important.

An Inaugural Essay

titled; A contrast between Smith's and Cooper's mode of reducing dislocated Femurs.

submitted to the examination of the

Medical Faculty

of the University of Maryland

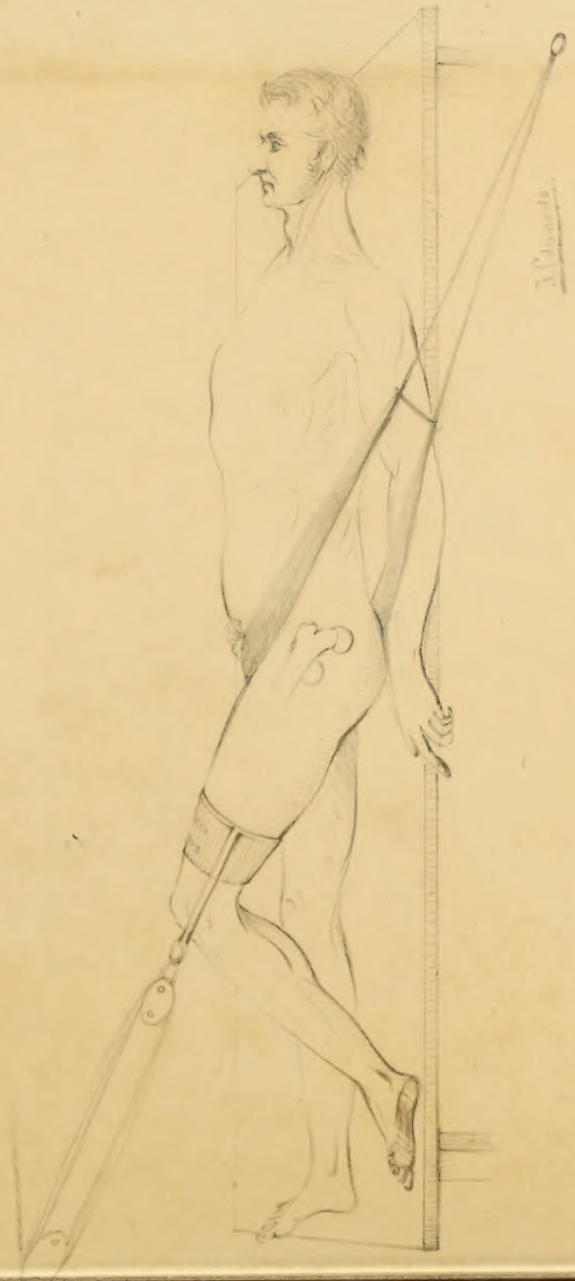
for the Degree of Doctor of Medicine

by Thomas Owen Edwards

of Boonsborough, Washington County, Maryland.

1831.

No. 1.



Lith. of Endicott & Swett.

To

Geo. M. Boerstler M.D.

of whose Talents and Hospitality,

I have so largely participated,

this production, is dedicated,

by the

Author

"Primum peccatum veniendum est"

In obedience to that regulation of the Medical Faculty in this University requiring a written Thesis from each graduate, I have after much reflection, resolved to offer a few brief remarks on the subjects of Dislocations; confining myself to those dislodgements which affect the articulation of the Hip Joint. I am fully aware of the difficulties connected with this subject; but these very difficulties make it one of extreme interest to Surgical Enquirers. The universal interest felt upon this subject is manifested by every writer on Surgery. Theories and practical rules without number, have been written, adopted, and rejected; and apparatus of most ingenious mechanical construction have been the boasted trophies of every age - Improvement on improvement, has been ushered to the world, founded on dogmas without philosophy and unmeaning distinctions have been passed off for real knowledge; without having relation to the anatomy or physiology of the Joint: until at last respectable surgery has pronounced the fatal sentence "that to distinguish the disorders of this joint is impossible; to feel for its injuries is unmeaning cruelty and that lameness is inevitable". Is this subject then really involved in such an amount of obscurity that it cannot possibly be dispelled?

Is the Hip-Joint of such peculiar intricacy, that its mechanism cannot be understood? Cannot the eye of the anatomist examine all its parts and demonstrate its structure? and cannot physiology delineate its functions? The Surgical philosophy of the present day can proudly respond an affirmative to all these questions; and perhaps no man in modern days, has written more sensibly and philosophized from purer data on this subject than the justly distinguished Sir Astley Cooper. But perfection is not the lot of any human being - it is the attribute alone of Him - who is the builder of that wonderful machine which we recently and for months have been investigating. We believe that we shall be able to point out some imperfections in the Therapeutic plan of Sir Astley, and we hope not to overstep the bounds of virgin modesty when we say, that we shall offer to this Faculty, a plan which shall supply the imperfections of Coopers Method. We pretend to no originality, and to offer any suggestions of ours upon a subject, that has engaged the gigantic minds of many distinguished geniuses; would be unbecoming our age and Station, and be in discordance with our present feelings. All we claim for ourselves, is, the right to examine the Theories and practice of others; and to adopt that which we believe to correspond most with the present enlightened period of medical

science. We shall attempt a contrast between the practice of Sir. Astley Cooper and that of the late and lamented Proff Smith of Yale, and which has been so ably taught in this University by his son the Surgical Professor. It may be thought presumption to contrast any American production, more especially one that relates to the healing art, with English authors, but for a Hunter, a Bell or a Cooper we can give them a Rush a Potter and a Smith and fearlessly challenge the production of a Washington. We the free born sons of the western world, are not disposed to receive every thing as the ne plus ultra before that we have fathomed it and found that within ourselves we could not contrive a better. Our first objection to Sir Astley's method is that the time required to overcome the action of the muscles as he expresses it, is too long. In reviewing his cases, we find patients kept in the pullies two hours — many eighty minutes and but few less than twenty. How a man of common sensibility could undergo extension by a pully of several hundred pounds power even for twenty minutes is to us a matter of astonishment. As for ourselves we would rather suffer the deformity than submit to such kindness. Secondly. the auxilliary means we think are altogether unwarrantable. If the object of the healing art is to assist nature, we think that by observing her ways and following her indications; and not pointing out the way she should go, that

object can only be attained. The object of warm bath, venesection and Tartarized antimony Sir Astly says is to relax the muscles, now if we relax the muscles which are already too much relaxed what do we gain? The only proper mode we can see to relax muscles too much distended is to remove their origins near their insertions and thus give them time to recover their lost tone and form. The muscles we conceive are honest things — they want no more than their right — and if perchance they have gained an advantage over their antagonists, they are even willing to suspend their acquisition, in order that the oppressed can by easy efforts obtain their lost tone and form. If we could possibly invent a remedy by which we could relax one set of muscles; and at the same time give tone and energy to the other, then the reduction of Dislocations would be as simple as any of the common operations of Surgery. But by relaxing all; we loose the advantage of one set and gain nothing from those already too much relaxed. Our next objection is that his instructions and apparatus are too intricate and unwieldy for the every day surgeon. In a Hospital in which a room is especialy dedicated to reductions and in which posts — pullies rings and staples may be kept — they may look as if workmen knew them; but in the practice of the surgeons of this country, he would find many 'Gude wives' who would demur against having a bolt driven into

her marbled walls or a stupid into her neatly swept floor. His ropes, blocks and tackles are inaccessible to us and consequently if we cannot employ his apparatus nor receive his instructions on this head his treatise on dislocations to us is worth no more than it should be. These are not all the objections which will hereafter be brought against Sir Astley's method; when experience shall have taught the Surgeon the pain he so unnecessarily inflicts. To the first of our objections it may be said that a certain time is necessary to do all things - so say we - but if we were to tell them that by the American method we accomplish in two minutes what they may call their certain time (two hours) they would certainly think there was some uncertainty in their certain time. Again the objections we make to the violent pain inflicted may be answered by saying, that with the reduction of any dislocations more especially one so complicated as the Hip Joint; pain, and that violent and long continued, was a necessary concomitant; but if we should say that by our plan of reduction - it can be accomplished in two minutes, without Venesection, warm bath, Laudanum or Sal Vol. and with a degree of pain hardly more severe, than the knock ackey we should not be surprised if they should say with the boy "enter us for double". His apparatus and mode of applying it we have endeavored to delineate and we think no contrivance could have been more

repugnant to the end its contriver designed but lord Coppers

'And Cooper said lord's right, and right it is,
no truth so valid, as a word of his.'

To adduce any thing new on Dislocations is not our object, it is merely to present the facts and reiterate the arguments of Prof. Smith and to endeavour to give that stability and firmness which we think they so justly deserve. For we are confident that without some long name and a greater degree of talent, than we in our humble sphere can ever aspire to - we can never be able in any measure to loosen the attachment of gentlemen from those false and absurd notions which have so long amused their fancy and directed their judgements and to turn over to eternal oblivion those speculations themselves. As becomes a young man and a learner we have always endeavoured to discriminate between the false and true of the various opinions which have been handed down to us. But we do not hold it as a point of conscience never to depart from the path of men, however great their names. Upon the Symptoms of Dislocations now generally received we can make no comment. From an examination of the Hip Joint in the Skeleton, a superficial observer would be led to believe that dislocation could seldom occur, and still further when he views it bound down by its cartilages, ligaments,

and muscles - he might suppose a dislocation impossible. Yet still they are frequently met with, although not so often as dislocations of the Humerus as the extent of motion is not so great; and in proportion to the extent of motion, just so is the liability to dislocation. When they do occur and whether this the inapplicability of instruments, or the unskillfulness of the surgeon, they remain unreduced the patient is forever after a living, moving monument of that unskillfulness; and adds one more to the now too many opprobium medicorum. For we hold it as a fact, that no patient should suffer any inconvenience from a simple dislocation of the Femur, when the constitution is not predisposed to disease; and how a patient can escape six months illness after having ropes and pullies with a power of several hundred pounds, appended to his legs for two hours is to us a wonder. He would congratulate any man under these circumstances on a more fortunate escape.

The Symptoms of Dislocation are very plain - they cannot possibly be mistaken for any other affection; save Fracture of the neck of the Bone. If upon rotating the Thigh we find great capacity for motion - then by gently extending it - if we restore the lost symmetry of the Joint and add to this Crepitus we are warranted in pronoun-

cing it a Fracture of the neck of the bone. To these there has been added- that there is not so much pain as in Dislocation but as we have no scale whereby to measure pain, it is of no importance and the three diagnostics together with the manner in which the injury was received are in themselves sufficient to warrant this conclusion - The general symptoms of Dislocation of the Hip Joint are the same as of Dislocations in general, i.e. loss of ~~the~~ symmetry of the part - disturbance of function - change of position or distortion - The Leg is either shorter or longer with pain. Authors of the present day acknowledge but four varieties of dislocated Femurs Upward and Back, on the Dorsum Ilii - Downward and Forward in the Foramen Ovale - Backward into the Ischiatic notch and Forward on the Pubes. In dislocation Downward and Forward the Leg is lengthened about two inches the toes turn out. Upward and Back the Leg is shortened about two inches, with the toes turned inward. Forward - the ~~Leg~~ about the natural length with the toes outward Backward there is less deviation, the position of the toes is natural - the Leg a little forward, but the Ant. Sup. Spine as process and Pubes are further from the Trochanter Major than natural and the rotundity of the Joint - and function are lost.

As our object is to contrast Cooper's with Smith's method of reduction - we can accomplish it by taking a dislocation Upward and Back on the Dorsum Ilii. We will be particular in giving Symptoms - causes - names and actions of muscles concerned in this injury as unless we do it, we cannot well explain the mode recommended by Prof. Smith. This accident occurs when a person falling from a height adducts his thigh - the knee or foot of which strikes the ground, the Thigh is pushed forward and inward the head of the Femur forced near the superior part of the acetabulum - ruptures the now much distended capsular and Ligamentum Teres - and ascends on the Dorsum Ilii. In the ascent of the head it pushes up the Glutæus Minimus and forms therein a cup, the inferior fibres of the Glutæus Maximus are a little distended; while the more powerful action of the Glutæus Medius draws the Trochanter major nearer the Ant. Sup. Spinous process and consequently the head of the bone is left a little posterior and Superior to the Acetabulum. The Pyriformis is slightly relaxed, while the quadratus femoris - Obturators - Gemini are distended - the Psoas magnus - Iliacus Internus and Pectinalis are considerably relaxed - . An exact idea may be further gained by recollecting that the capsular Liga-

ment torn at its superior part is distended across the acetabulum and covers it; together with the shaft of the bone. We wish it to be perfectly understood that the muscles on the posterior part of the Thigh the Obturators - Gemini - Quadratus Femoris and the posterior fibres of the Gluteus Maximus are painfully distended - while the Gluteus Med. the Iliacus Int. - Psoas Mag. - and Rectineus are all very much relaxed - we say; we wish this born in mind as it is only by relaxing the distended and distending those relaxed we can bring them all to their natural position. We will now give Sir Astley's mode of reduction in his own words. "Take from the patient from twelve to twenty ounces of blood or even more (if he be a strong man then place him in a warm bath at the heat of 100° gradually increased to 110° until he faints. During the time he is in the bath give him a grain of Tart. Ant. every ten minutes until he feels some nausea then remove him from the bath and put him in blankets and place him between two strong posts, about ten feet asunder in which two staples are placed; or rings may be screwed into the floor and the patient placed upon it. My usual method is to place him on a table covered with a thick blanket upon his back; then a strong girth is placed between his pudendum and

thighs and this is fixed to one of the staples (vide drawing no. 1)
a wetted linnen roller is lightly applied just above his knee, and upon
this a leather strap is buckled, having two straps with rings at right
angles, with the circular part. The knee is to be slightly bent but not
at right angles and is brought across the other thigh a little above
the knee. The patient being thus adjusted, the surgeon, slightly
draws the string of the pulley, and when he sees that every part of
the bandage is on the stretch and the patient begins to complain
he waits to give the muscles time to fatigue, he then draws again
and when the patient suffers much he again waits untill the mus-
cles yield. Thus he gradually proceeds untill he finds he the head of
the bone approach the acetabulum. When it reaches the lip of the
cavity he gives the string of the pulley to an assistant and desires him
to keep it in the same state of extension, and then rotates the knee and
foot gently, but not with a violence to excite opposition in the mus-
cles and in this act the bone slips into its cavity. In general it does
not return with a snap into its cavity when the pullies are employed
because the muscles are so much relaxed that they have not suf-
ficient tone remaining to enable them to act, and the surgeon is
only informed of the reduction by loosening the bandages and com-

paring the limbs. It is sometimes necessary to attach a napkin to the thigh directly under or near the head of the bone, to life it over the lip of the acetabulum. I may here observe and I trust without ostentation, that it has been successful in a great many cases and that it has rarely failed tho' under the most disadvantageous circumstances; it may require a little difference in position, but this will only be an exception to a general rule, and will very rarely occur. Thus have we given Sir Astley's method verbatim et literatim and tho we doubt not, but that tis the result of considerable experience and that it has been successful in a great number of cases – yet if it have failed in one it will not answer our purpose. We have been thus particular in giving Cooper's method in order that its complexities will be more apparent when compared with the simplicity of Smith's. In a few words we can give the philosophy of his plan. (The drawing No 2. will indicate the different positions of the bone.) The patient is secured by a band passing round the uninjured thigh upon a table on the side opposite the one affected while an assistant secures him more firmly by pressing on the Ant Sup. Spi process. The surgeon then grasps the leg flexes it – using it as a lever – rotates the thigh outward, which

brings the Trochanter Major just perpendicular to the neck and head of the bone, and the head immediately above the acetabulum (the head of the bone being 2/5ths of a circle can touch the os Illeum but with 1/12 of its circumference) he now abducts the thigh which still more presents the inclination on the head of the bone to the gentle inclination of the Illium and in the abduction he brings into play the Illiacus Internus and Psoas magnus (inserted into the Trochanter minor) they by their combined action drive the bone into the socket by an audible snap. on the general rule of his theory is to adduct when abducted — and rotate inward when rotated outward and vice versa. There is no necessity for any extension — save when the dislocation is forward on the pubes — in this he moved extend gently — rotating the thigh inward — reducing it to a dislocation into the foramen ovale which is reduced simply by adducting the thigh. Where Sir Astley wants adduction he wants abduction where extension we want none — and when he by his mode wishes to know whether or not, he has accomplished the reduction — we can feel — hear and almost see it.

A case is reported in Sir Astly work on Dislocations (page 80) of one Mac. Fadden. a seaman, who injured his hip by a fall from a coach, which shows in a very striking manner the inefficacy of his mode of treatment. His case was treated as a fracture of the neck of the bone by Mr. Cline of St. Thomas's Hospital, and after having experienced no relief from the means adopted he was dismissed with the assurance that the limb would be useless to him as long as he lived. The man was subsequently taken into Guy's Hospital, Sir Astly, whose patient he became, brought the head of the femur out of the socket; and after bleeding, putting him into the warm bath. and administering nauseating doses of Tart. Ant., attempted to reduce the dislocation. The attempt was unsuccessful, as were all others that were afterwards made, and he was again dismissed as an incurable cripple. Art was exhausted; now was the time for chance. and wonderfully was it shown. During the summer, five years after the accident, whilst on a voyage from Falmouth to Plymouth, in a little coasting vessel 'the ship made a tack;' by which he was thrown out of his birth. At the moment he fell, he heard a loud crack in his hip and from that time he put aside his; crutches and recovered the perfect use of his limb. The man is now doing duty as an able seaman, on board a ship which trades from this port to London. The practical importance of this case is not, perhaps, equal to the curious character of its termination:

'It proves' says Mr. Cornish (the narrator) 'the possibility of reducing a displaced joint, even after the lapse of years, when every impediment to reduction may be fairly supposed to exist (particularly the obliteration of the acetabulum), and when most surgeons would judge the attempt useless;, and it serves to illustrate the proposition, that 'a slight effort when the muscles are unprepared, will succeed in reduction of dislocation, after violent measures have failed'. And it further illustrates the possibility of chance in this case and a slight manipulation in any other, overcoming obstacles which were insuperable, to the combined agencies of pullies, Worm bath - and Lost. Ant. tho guided by the hand of their inventor -

Every thing which drops from the pens of our Trans-atlantic brethren is too apt to be seized with avidity and to be received for truth by our youthful surgeons - They forgetful of the declaration 'that we are and of right ought to be free and independent' will succumb tho not bodily, yet with their better part the mind - to productions which almost tell of themselves their own imperfections. Such we are happy to say, was not the case with the illustrious author of the American Method. - Altho' the European plan came to him with 'all its blushing honors thick upon it' bearing on its brow the name of Sir Astly Cooper Surgeon to His Majesty &c &c &c the result,

of much deliberation and great experience, yet he could not adopt any system, without first putting it to the test of his finely disciplined mind. He investigated it and with the consciousness of truth, points out its imperfections and its errors. But this was not enough for the philanthropic philosophy of Smith - he substituted another and and a better plan, which if properly appreciated, would alone place his name on the same scroll of fame - with those by-gone illustrious men, who by their talents, industry and perseverance have so much ameliorated the sufferings of mankind; and raised the science of Surgery from that degraded state, to which, the withering hands of ignorance and superstition, had so long bound it. To Smith we are indebted for many other valuable improvements in the healing art. He laboured most successfully, to lessen the innumerable ills, to which mortal man is heir - Gall, scholastic - nosological rules could not restrain his mighty genius - it was vivid as the lightnings flash - unconquerable as the Oceans wave. While the eyes of the good and great were intensely directed to the mighty genius of Smith, in full anticipations, of copious draughts, from the deep fountains of his intellect - death marked him for his own; and he descended to the Tomb honored and regretted by the Philosopher the Philanthropist and the Christian - "He rests from his labours and his works do follow him" Peace to thy ashes illustrious man.

Inaugural Dissertation

on

Yellow Fever

Submitted to the [illegible]

[illegible]

of the

University of Maryland

for the degree

of Doctor of Medicine

Sept 1851.

By

D. R. Arnette

of

New York

Inaugural Dissertation
on
Yellow Fever.

Submitted to the examination of
The Provost and Medical Faculty

of the
University of Maryland
for the degree
of Doctor of Medicine

April 1831.

By
D. K. Hearttle
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New York.

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Inaugural Dissertation

on

Yellow Fever

of the

University of Maryland

for the degree

of

M. D.

by

[illegible]

New York

To

Nathaniel Potter, M. D.

Professor of the Theory and Practice of Medicine

in the

University of Maryland.

Dr Sir.

There is not a person, to whom I can with greater pleasure dedicate this dissertation, than to yourself. For your instruction in the profession, and the many kindnesses shown me I feel greatly indebted. Accept Sir this acknowledgement as expressive of my warmest gratitude, and at the same time hope, that the dedicator's feelings may not be estimated by the merit of the few sheets dedicated.

Wishing you many years, to enjoy the honours you have already won. I remain Yrs.

The Author.

To

R. W. Hall M. D.

Professor of Obstetrics and diseases of

Women and Children

in the

University of Maryland.

Sir

Permit me to affix your name to this my first essay; to acknowledge the pride I feel by professing your friendship; and believe me, when I add, that your polite and particular attention will make a long and lasting impression on the mind of,

The Author.

In almost every country, where this disease has made its appearance, there has it received a different appellation. From the destruction which it has spread in the West Indies, America, and other places, so has it been named after them. The French, have called it fievre malebotte, owing to its attack upon Ships, and the Spanish, vomito prieto, signifying Black-vomit. Sapeka, has been used, because by this word is understood a species of flag which grew on the banks of the rivers, and when rotten gave rise to the disease, this is the same with the Common Cattail flag of our own Country. By Rush it has been termed the Bilious Remittent Yellow Fever, from its assuming sometimes the remittent form, and to the yellowish countenance of the patient, it owes its name the Yellow Fever. Thus from the symptom which attracted particularly the attention of writers, has its name arisen.

If there be exposed to the action of heat and moisture, (the thermometer being 95°) vegetable matter of whatever kind, there is generated a peculiar gas, or combination of gases, termed marsh effluvia; which acts as the remote cause of—

of Intermittents, remittents, and all their different modifications, independant of animal putrefaction. When a healthy person, is subjected to the action of Malaria, it becomes the predisposing cause, the nervous system being now weakened, needs but an exciting cause, to bring forth the disease; and on the contrary if a person already in a state of predisposition, by excessive fatigue, or from any other circumstance, be exposed to the influence of this gas, it then acts as the exciting one.

Dr Shecut of Charleston says, the predisposing cause of this disease is the atmosphere being deprived of a due proportion of the electrical fluid, from an excessive hot and dry or hot and moist Summer, its vital influence is diminished, and a specific gaseous poison is generated therein. To this opinion we cannot altogether agree. A Store house on the wharf, in which had been kept flour, wheat Corn &c &c had been visited by several persons who contracted the fever, and of those who had the disease, each it was found had visited the spot. The floor was torn up, and from under it was taken several bushels of putrified vegetable matter =

matter. those engaged in removing it had yellow fever, but after its removal, not one was seized with the complaint, and could visit the spot with impunity. In this case it evidently arose from Mr Effluvia generated here acting as a poison on their systems, which might, or might not have been predisposed from a deficiency of electrical fluid: this we cannot pretend to decide. Excessive heat causes great evaporation to take place, the hygrometric vapour exists in the atmosphere, in such quantities during our Summer months as to conduct the fluid from our machines, rendering us incapable of collecting it in any considerable quantity.

That Marsh miasmata unconnected with animal putrefaction, is capable of producing fevers of the intermittent kind only is not so. Let us look at any place, where every year they are attacked with intermittents. What do we see? a number of persons, who have become acclimated to the place. But if a stranger, who has never been exposed to miasma, visit these parts, he will have the disease much more inflammatory, and if the cause be strong enough, he may have a bilious fever, and then exists no difference —

difference between bilious and yellow fever, but in degree. The Case before cited, goes powerfully to show that something more can be produced independent of animal putrefaction, than a common intermittent fever.

Any particular place where the Y. Fever has annually paid a visit the succeeding attacks will be less inflammatory, owing to their being continually exposed to the action of the poison, but when they have not had it for many years, their next one will be of a very high grade.

Some authors have taken advantage of this, for in tropical climates when persons have become seasoned they seldom have it more than once, they have from this fact supposed it to be a contagious disease, but a great number have had it four or five times, which at once confutes the doctrine of the Contagionist; even a person from a tropical, spends a winter in a cold climate, the Catability becomes accumulated, and if they in the following summer be exposed to the cause of the disease, they will have it. It has in fact by many persons in many places been shown to arise from Mal Effluvia, and is now the generally received opinion that it is not

Contagious—

contagious.

On this question; whether the Yellow fever is or is not contagious? it would be impossible to add more than our opinion. It was before stated that it was generally considered not to be a contagious disease, but on the contrary many learned men have thought it to be contagious. Some of them have certainly misinterpeted facts which have presented themselves, for example when the Jews breaths out in any situation, one person will visit another in the disease; in a longer or shorter time they may be attacked with the complaint. What of this? does it prove the disease to be contagious? assuredly not for the same cause, that acts upon one in this situation, so as to produce disease, will act on another in the same manner. If they leave the place, they do not escape by not having communication with the sick; but by ceasing to breath the injecting atmosphere. To speak of its being a contagious disease to the most illiterate persons inhabiting those countries, where it most frequently prevails, we should be laughed at. We think that it can no more be contracted from a person labouring under it, than

Can=

can the gout, or rheumatism.

The subject of quarantine laws, will next attract our attention, not from any usefulness which they afford, but more from the ignorance which they evince, that space of time being forty days which vessels, suspected of infection, are obliged to withhold intercourse, or commerce. How it is that forty days are allotted to this duty we know not except it be from the time which is so was set aside on prior occasions, as our Savior fasted forty days, so do some Christians observe the same rule; the flood lasted forty days and likely from precedent this has been its origin. But why would not one or two days answer to effect this purpose. If there be any on board with the complaint let them be sent on shore among their friends, and if it does not arise from on board the vessels from putrid matter in the hold let her proceed to her destined place. But if as is sometimes the case that its origin be on board the ship, it will be indispensably necessary to remove the hatches, and offending cause, and this may not be requisite in one case out of ten. When putrefaction has been thus going on the poison becomes concentrated, and when it has

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an opportunity of escaping, it rushes out pro-
ducing some of the most violent cases of this
disease. Between the processes of detention,
fumigation &c (the letters are in some places
laid hold of by a pointed stick, cut through by
a sharp instrument and fumigated by sulphur.)
the amount of loss which have been and will
be sustained is impossible to conceive.
Fly as a complete nuisance, and fit for no dis-
eases, except small Pox and Varicloid, which are
but one disease, saving that the latter, is but the
same begotten on a vitiated constitution, which
will communicate S. Pox to one if they have not
previously undergone vaccination. and in this
age, it is to be devoutedly wished, that this
regulation may be laid aside, considering it as
not only useless, but as injurious.
As for the composition of Malaria, Chem-
istry has not as yet furnished us with instru-
ments sufficiently delicate, to ascertain it, no dif-
ference can be distinguished between the air col-
lected over a marsh, or mountain. Some have
thought it one gas, others another. In the labo-
ratory the Chemist is exposed to these gases in
a simple as well as compound state, without

ven-

even producing an intermittent fever, and until Chemistry has made more advances, we must consider it as sui Generis.

It has been observed that the Specific gaseous poisons of Typhus Fever and Arsenic, resemble one another very much in their action, except that Arsenic acts quicker, and some have thought that on its being discovered it would resemble the Prussic Acid.

We should have remarked, that the cause of this disease, acts on the nervous system through the lungs, and more directly on the brain through the olfactorys, and not through the stomach by being taken into it in combination with the saliva. The following case is we think sufficient proof of this proposition. Two of three medical gentlemen went to examine a spot, from which it was said the fever took its origin, and one of the gentlemen, being of the latter opinion determined not to swallow his saliva which was accordingly practised, the other went fasting under a dose of Calomel. the former of these had the disease, whilst the latter escaped it.

Among the class of diseases, with which—

which the physician has to contend, none is found to vary in its character so much, as the one now under ~~its~~ consideration, like the chameleon, which the travellers saw each in a different colour, so this disease has differed in descriptions by the several writers on the subject, and if those who have so strongly contended, that his description of the complaint was correct, how great would be his disappointment, if placed in another latitude to find the principles correct, against which he has so strenously combatted. Some years we find the head more affected than at others, and one season the liver is more congested than at another. Its tendency to bring every disease under its control exceeding asthma is remarkable, its influence on Cholera is such that depletion must be used or our patient dies. In 1816, commonly called the cold Summer, not a single case was observed in our mercantile cities. Why? the reason is obvious, the thermometer was not up to the degree of heat sufficient to favour the generation of Malaria: and never was there a fact which so forcibly illustrated its origin.

If =

It attacks persons usually with a feeling of giddiness, pain in the back, head, and limbs, faintness, sickness at the stomach, generally with a chill, sometimes with one or all of these combined, at other times he feels not the slightest pain, this is owing to the poison acting so powerfully on the system that reaction cannot take place, they seldom recover from this state, and may be said truly, that he is dead, whilst living, he occasionally find it attacks by a diarrhoea, showing the intestines to be in a weakened state, and irritated by a vitiated by secretion, poured out by the liver.

To this stage succeeds, a powerful reaction, and is accompanied by a red eye, flushed face, yet sometimes pale, there is something peculiar in the appearance of his face, if he faints from blood letting it has not what we might with propriety term a pale but a dusky appearance, something of a mahogany shade, headach severe, dry and hot skin, and the more congestion the less heat there is on the surface, the more obscure its symptoms and the more difficult its cure, often the eye is dull and glassy, great anxiety about the precordia, restlessness, and =

and sighing, which is always a sign of completion, pulling sometimes bile, but in the most malignant state, now is pulled up owing to there being none secreted. The disease is never accompanied by a soft pulse, we have what is mistaken for soft it on slight pressure." So, it is depressed, but the fingers on pressing it, the mind tends it will appear, in the last stage of the disease it is weak, the action of the heart is such, that it cannot but give a weak pulsation. Mania generally takes place in this stage, at other times, he is taken raving mad in the street, The delirium is high and fierce, they will get up, dress themselves, in order as they say, to go to work, and it requires the united efforts of several persons, to keep him in bed, and not unfrequently before the lapse of a few hours he is a corpse.

The tongue assumes different appearances, at the onset of the disease, it is white, which continues so but a short time, in a day or two, we find the secretion copious and black, depending, considerably on the state of the stomach, and shows the presence of inflammatory action, calling loudly for the use of bleeding and purging.

Sometimes —

Sometimes brown, and becoming black, also a smooth shining red appearance, attended with debility, at another it has a raw look which indicates more debility; and is still worse, when it looks natural, and the last we shall notice, is a yellowish aspect and flocculent like the one which we sometimes see in Pneumonia Bilosa, seeming as if it had been sprinkled with Sulphur.

The Skin is almost always dry, and very difficult to excite, and does no good without it is kept up for a considerable time. In highly inflammatory stages it is rapid, and some cases have a sweating from the beginning, indicative of great danger, the first steps to convalescence is a diminution of this secretion. A cold sweat sometimes succeeds the chill, it is attended by great congestion and consequently low action, yet our treatment must be Mercury and the Lancet.

The secretions are all affected, the liver, either pours out a vitiated green, or black matter, of an intolerable stench, and excoriating the intestines, causing something like a dysentery, at others, there is no colour to the faeces being like those passed off by a dog.

Great irritability of the Stomach succedes

succedes, he pukes up a matter resembling coffee grounds, or if we take a quantity of soot, and mix it with water, one can hardly be told from the other. This has been termed black vomit, and by some thought necessary to constitute the disease.

But this disease can exist independent of the B. vomit, or yellow skin, which sometimes accompanies it, and only shows that the patient has been either neglected, or improperly treated. If the physician be called in the first instance, it lays in his power, by proper remedies, to prevent both of these symptoms. Hiccough generally precedes this symptom, when it does come on, the patient gradually sinks. Black vomit is owing to the stomach being in a state of congestion and secreting this fluid which is sui generis. It was by Rush supposed to be vitiated and discoloured bile. Some at present regard it as blood let loose from the liver and stomach, from the violence of the disease, and others vitiated secretion of the gastric juice mixed with blood. We find the gall bladder containing the more fine parts of the bile, the most fluid being absorbed and new secreted, because of the congested state of the liver, and that which is absorbed causes the yellow skin, the concomitant of the disease.

May =

may be produced in two ways, 1st when a large quantity of bile is secreted and does not pass off readily, 2dly when none of it passes off, owing to the inflammation causing an obstruction of the ducts. Various opinions have been held as regards this yellow colour. Some ascribe it to the serum rendered yellow by the dissolved red globules of the blood, and effused under the cuticle. Dr Fordyce to the excessive secretion of the sebaceous matter of the glands of the skin, and Saunders to a peculiar state of the lymph in the subcutaneous cellular tissue. Persons with the vomit feel very little pain, if you enquire of him how he is? he will answer you that he is well and die shortly afterwards.

Professor Potter relates the case of three men at the Hospital who he visited, he found them sitting on the side of a bed, nursing pots who called spit the vomit furthest, and before midnight they were all dead. Persons have drank and been inoculated with this fluid, without producing any bad symptoms, and the case of A. M. Lyon of Fort Royal Martinique as related by Mason Good in vol 2 page 179 of his works is sufficiently demonstrative of this assertion.

He for 24 hours wore the shirt of a soldier which

was-

= was drenched with sweat, who had been labouring under the disease in its worst state, was vaccinated in both arms, with yellow matter flowing from suppurating blisters. went into the bed of a patient, who had just died, while it was soiled with excrement, were at the same time his shirt while it was warm and soaked with sweat, and closed the scene, by drinking two ounces of black vomit discharged from the dead man's stomach, and he entirely escaped the fever.

We do not meet with this symptom in common bilious fever, because the liver is not so locked up. In the worst cases no urine is secreted owing to congestion. Hæmorrhages and petechiæ have been observed to take place from a very early period, which appears much like the plague, and from all that has been noticed of the disease, it seems the same as our yellow fever, except it's being of a higher grade. There are three kinds of petechiæ, depending on a weakened state of the capillaries and they being ruptured. First from the exudation of serum under the cuticle. Second from the effusion principally of arterial blood, and the third dark, being caused by the deposition both of arterial and venous blood. The two first

indicate =

=indicate inflammatory action, we see them sometimes along the surface of the body, and were called by the ancients vibices, we may regard them as cutaneous hæmorrhages. The patient dies sometimes with hemorrhages from different parts of the body, roots of the hair, ears, nose, gums, bowels, urinary bladder &c. yet these are not necessarily fatal.

When the yellowness of the skin does not appear until late, it is favourable, to the contrary unfavourable. The eye being dull and glassy is a very dangerous symptom, pulse is a favourable symptom, it shows the liver to be unlocked. When he has an evacuation it is of a dark bilary appearance. The pulse becoming natural, obstinate costiveness, or a discharge of white stools, a suppression of urine, delirium, and coma, black vomit. a smooth red tongue, covered with a lead coloured fur, serenity of mind and placid countenance, sitting up, indisposed to answer questions, and hiccough, are all signs of great danger, and when these symptoms disappear, or some of them, as the urine being again secreted, we may then congratulate our patient on his escape from the great danger in which he has been, and will be able to prognosticate

more=

-mon favourably. But in thus doing, we should be very cautious, for to prognosticate wrong, might not only be hurtful to ourselves, but also to the patient and persons related with respect to their worldly affairs.

Dissection unfolds to us the wonderful ravages of this disease, we find the stomach as well as intestines, loaded with a black fetid matter, that in the stomach being the black vomit, and what we find in the intestines, appears to be a vitiated secretion of the numerous glands spread along that tube, sometimes they are inflamed or ulcerated. The liver in many cases, to be shrunk to much less than its natural size flaccid, and of a buffy colour. The gall bladder inflamed on its inner surface, with little or no bile in it, at others containing a hard dark concretion like the extract of hemlock. The lungs, pancreas, brain, and even urinary organs, have at other times exhibited the chief seats of disorganization.

To this disease, the greatest enemies are Calomel and the lancet, and without which, we cannot cure it. In the commencement of the

of the attack, when arterial action is augmented, with hard pulse, hot skin, thirst, nausea, pain &c the lancet is the proper remedy, twenty to thirty ounces of blood will cut short the fever, bleeding in this case should not be confined to quantity, but to effect. I have seen bleed to the extent of eighty ounces or more and with success. And if, as is sometimes the case If there is local congestion it will be necessary to follow this evacuation by strong doses of Calomel, about five or ten grains every 2 or 3 hours. But if as is sometimes the case, there be not much local congestion other symptoms have removed it, but not so effectually as Calomel It has an action on the liver sui generis, to which no other article of the materia medica is similar The best way of exhibiting Calomel is by itself, and not in combination with jalap as is sometimes the case, it is precipitated through the bowels at such a rate, that time is not permitted for it to act.

Cathartics generally may come in as auxilliaries to Calomel, we can procure a passage by salts, and other remedies of this class, but not such a one as a physician would wish to see. The kind we want and must have are black

And

=and fetid. If he has restlessness, nausea, low flut=
=tering pulse but tense, he may bleed though a
small orifice so as to lessen congestion, but our dep=
=endence must be placed in mercury applied
internally and externally.
When the head in the first stage is affected,
benefit may be derived from the use of cold appli=
=cations, shaving the head and applying a bladder
filled with ice, by this precaution we prevent
the sphacelus, that otherwise might take place,
Cold baths may be allowed if it agree with the
stomach of the patient, we should by all means
prevent the irritability of this organ.
Blisters have been applied with the view of re=
=moving this peculiar irritability, they however are in=
=competent to do this while there exists congestion.
If we are satisfied that congestion has been
removed, and this state continues, a blister over
the region of the stomach will be proper.
They are also applied to the back of the neck,
to remove headach, the same rules should guide
us, in this, as in the preceding case.
Opium by some has been employed, and by it
death is almost certain, it not unfrequently
produces hemmorhage. and even when the patient
has=

=has been walking about, will cause a relapse. Professor Potter relates a melancholy case of this kind. A young man in the disease was attended by him in consultation with another physician. he had so far recovered as to come down stairs and walk about. Wishing however to procure sleep he sent to the other gentleman, who allowed him a dose of the Pulv Doveri which he took. had a relapse, and in a few days died.

During his convalescence no stimuli of any kind should be allowed. He requires great attention during this period, perhaps from the good intentions of his friends badly applied, they may send him such articles as may prove his destruction, such as wine Whey. Tapioca. Sago. Jelly &c Here Cincho=
=na and other tonics may be laid aside for the more proper Wh. Gruel, new ripe fruits, toast and water, milk and water, molasses and water. Super tart potass. and tamarinds. Lemonade is objectionable. it increases the irritability, and will act on the Calomel. Of these the Sup. Tart is the best, with such other articles, which being bland and easy of digestion, at the same time afford nourishment.

The success that has attended the=

= the practice of Prof Potter we can have from his own statement -

In	1797.	he attended	172.	and of these lost	3.
"	1800.	" "	844	" " " "	9.
"	1819.	" "	48	" " " "	0.
"	1821.	" "	87	" " " "	3.
		numb of Patients	1151		15.
		lost	15		
		total Cured.	1136.		

From the issue of this practice, we cannot with a gentleman of the South agree "to reject along with the lancet Mercury, except as an auxiliary ingredient, to a limited extent"

To avoid this complaint, it would be best for the patient to live regular, abstaining from all meats excepting those easy of digestion and they in sparing quantities. To drink no spirituous liquors, nothing but water, or lemonade: to keep his bowels open, shuning the night air; as well as the sun, and when compelled to go into he should carry an umbrella, and to sleep as high as we can possibly get, as the poison becomes concentrated at night, at which time (during sleep) the person has an increased susceptibility to be acted upon by it. Avoiding all =

all fatigue and going out early in the morning. Also the debilitating passions, whether direct or indirect. Also to keep himself perfectly composed and prevent a sudden check of perspiration. If he be plethoric it would be advisable to bleed and afterwards to touch his mouth slightly with mercury. For this purpose I give grs 5 of the blue mass every night, and if it should pass off by the bowels combine with it a small portion of opium.

A person by following these rules may escape the disease, and if he should be attacked it will be in a very mild form. After becoming accustomed to the climate, it will not be necessary to live so abstemiously, although any one would wish (by any means) to escape this as it has been termed King of Fevers and Fever of Kings.

Finis.

An

Inaugural Dissertation

on

Inflammation

For the

Degree of

Doctor of Medicine.

Submitted to the

examination

of the

Provost, Trustees & Medical Faculty

of THE

University of Maryland

by

John Gibson

April 1st 1831

To Samuel Baker M. D.

Professor of Materia Medica in the University of Maryland. The following dissertation; as a just tribute to his exertions and example, in transfusing the improvements of Literature; and more especially, in cultivating, with unremitting zeal, the science of medicine in all its various departments; as a small testimony of personal esteem, for his eminent talents and liberal manners; and as a token of gratitude for his professional services in the prosecution of my studies, is most respectfully inscribed

by his pupil
The Author

University of Maryland
April 1st 1831

Inflammation may occur in any texture of the animal economy, where blood vessels are situated, and is concerned in almost every case that falls under the care of the Surgeon; either as a cause, symptom consequence, or even as a means or mode of cure. The symptoms which characterize inflammation, are; heat, redness, swelling and pain in the part affected; But each of these effects does not equally prevail in every form of inflammation; some one or more of them may be nearly or entirely absent. Erythema for example exists with little or no swelling; while on the contrary, chronic inflammation may be attended with a great deal of swelling without redness or much pain.

Inflammation then is a process liable to a considerable variety, which is regulated either by the exciting cause, the nature of the constitution, or the particular structure in which it takes place. The differences noticed in the character of inflammation, have led to its division into several kinds, as for instance, Acute, Chronic. Healthy, Unhealthy, Simple and Complicated.

Acute Inflammation implies that form, which produces all its effects quickly, its varieties are many, comprehending not only every instance of the Healthy and simple form, but that which is regarded as unhealthy or complicated.

Chronic Inflammation, on the contrary means that which is slow in its progress; sometimes commencing almost imperce-

eptably. but frequently coming on as a consequence of the acute form. It is the change produced by this form of inflammation that we account for almost all the thickenings of various textures, and for the generality of indolent tumours. many of its effects are exemplified by the ravages of Scrofula, while the decline of acute inflammation into it, may be seen in cases of Opthalmia and Gonorrhoea.

Healthy inflammation is that, which is not characterized by any particular disease in the part affected, or in the ~~Symptoms~~ System at large. While the unhealthy form, is applied to cases in which the appearances, progress, and termination of the inflammation are under the influence of some disease of the part affected, or the system at large.

By simple inflammation, we understand that it is not only of a healthy kind itself, but unconnected with any specific disease, as Syphalis, Fungus Haematodes, Cancer, &c. all which affections are frequently surrounded by inflammation, not of their own particular nature, but of that kind, which may be termed complicated. It may also be said to be complicated, when attended with the lodgement of bullets, pieces of bone, and other foreign substances, which cannot be immediately removed.

Terminations of inflammation, The most desirable of which is is resolution, or adhesive inflammation, that which causes

parts to adhere permanently together. This is certainly one of the most important operations which the animal economy is capable of performing; in consequence of its being the means by which Wounds, Fractures, and other serious injuries are repaired. And sometimes diseases are cured by the changes to which it gives rise.

Suppuration, another, and very important termination of Inflammation is nothing more than the formation of a fluid called pus, by a secretary process.

Another termination is ulceration, or the absorption of any constituent part of the body.

The fourth and last is gangrene, or the destruction of the vitality of the part. From two causes excessive inflammation, or where the inflammation is less in degree, but the powers of the part are feeble. hence another common division of inflammation into the adhesive, Suppurative, Ulcerative, and Gangrenous.

Frequently an original disposition to one of these consequences prevails, thus Furuncles and whitlows tend to suppuration always, and carbuncles to Slough. certain kinds of inflammation rarely or never terminate in Suppuration. but no matter how violent, they gradually subside without producing any of those effects, as for instance, Cynanche parotidea and Gout. The causes of some inflammations are so fixed that it is very

difficult and generally impossible to change it. Thus the gradual subsidence of the swelling of Cynanche Parotidea without suppuration, is as constant as the suppuration of a whitlow.

The terminations of inflammation also depends upon the particular situation and structure of the part affected in the cellular membrane, the body in general, its circumscribed cavities, deeply seated organs, and serous membranes; the adhesive inflammation is most liable to occur, while the nearness to the surface of the body, and the texture of the mucous membranes, are circumstances facilitating the suppurative inflammation. Mortification is most apt to occur in parts of inferior vascularity, as tendinous, facia &c.

There is a variety of inflammation occuring near the surface of the body, named by some Phlegmon, the symptoms of which are, a throbbing pain, a firm circumscribed swelling, an increased heat, and more or less redness of the part affected; these local symptoms when the inflammation is severe, either on account of the degree, extent, or nature of the part affected, are always attended with a febrile disturbence of the whole system, named accordingly symptomatic inflammatory fever.

There is reason to believe that acute inflammation, taking place in ~~any~~ any part of the body, extends its effects to the whole system, and more particularly to the circulating blood: as is evinced by the pulse, and the appearence of the buffy coat; which is nothing more than a preternatural quantity of fibrine found concentrated upon the surface of the blood, in the form of a cup, after being abstracted from the body, and permitted to coagulate.

The cause of this phenomena has been a frequent subject of investigation: It has been supposed by many to depend upon the slower coagulation of the blood; but this is insufficient, for we see blood coagulate slowly, without the buffy coat. We may often predict, blood to prove buffy, from the bluish appearence it has, when running from the arm. Some pathologists imagine that the relative proportion of fibrine is increased in inflammation; others attribute the phenomena merely to an increased rapidity in the blood's motion. Forgetting that it is often buffed when the force of the heart is almost natural. I am inclined to believe, that those who impute it to an increased quantity of fibrine, are nearer the truth. For we know this part of the blood goes to form the solids of the body, by a process called secretion; and in acute inflammation, many of the organs

that perform that function are suspended in their action, the result of this, must be an accumulation of that part of the blood.

This appearence of the blood is disposed to occur, in the genrality of inflammatory complaints, as in continued and intermittent fevers, varicy, and certain nervous affections. De Hean observed it in the blood of persons who were exposed to hard work in frosty weather, and in persons, who were exposed to the night air, in the cold seasons of the year, and in pregnant women: yet he gives no reasons why it appeared in such cases. I think it may be accounted for, by paying particular attention to the secretary process; for we know when cold is applied to the body, it has a debilitating effect, and the weakest parts of the sanguiferous system, which are the extremeties, or in other words, the capilary vessels, which perform the secretion, suffer first: the consequence is, the destruction or temporary suspension of their functions: As regards pregnant women a very important process is suspended, which is menstruation; admitted by all our late physiologists, to be a secretion performed by the vessels of the uterus; and not a flowing of blood as was supposed by Mr Hunter, to relieve the plethoric state of the female system.

We are not to adopt this appearence of the —

blood, however, as the only criterion of inflammation; there are many others mentioned by Dr Rush (which are produced by different actions of the vessels upon the blood circulating through them) such as the dissolved blood which exists in the malignant forms of fever, blood of a scarlet colour, without any separation, into crassamentum or serum; he says, indicates a second degree of morbid action, and a third form, in which a part of the crassamentum is dissolved in the serum, forming a resemblance to what is called, the lotura carnium, or the washings of flesh in water, a fourth appearence in which the crassamentum sinks to the bottom of the vessel in yellow serum.

With respect to the symptoms described in the former part of this essay, several of them may be obscured, or essentially changed, according to the particular situation, structure or nature of the part affected: the different effects resulting from disturbence of the functions of various organs, must certainly produce a change in their symptoms: thus when any of the deeply seated organs, are affected with inflammation, the redness, swelling and throbbing, are not manifest to the eye or touch; but although these symptoms are involved in obscurity, the disorder still betrays itself by the pulse, situation of the pain, the particular function impeded, and the appearence of the sizy-blood. The redness of an inflamed part, is owing to

an accumulation of the red globules of the blood in consequence of the small vessels, (both arteries and veins) becoming enlarged or dilated from a cause which will hereafter be described. Opthalmia is sufficient to prove the dilatation of these vessels for before inflammation the vessels are too small to admit red globules, thus they admit nothing but the colourless part of the blood to circulate in them; the vascular appearance of the rabits eye often, after being exposed to an intense degree of cold and brought into a warm temperature is another great evidence of the vessels becoming dilated. The swelling, and redness of inflamed parts, are owing to a turgid state of the vessels, and an extravasation of serum, and coagulable lymph, and interruption of absorption. That the extravasation of coagulable lymph, has a remarkable share in producing the swelling is unquestionable; for it fills up all the interstices, glues their whole structure together, and consolidates them into one mass. As regards the temperature of inflamed parts, Hunters experiments prove, that it is never raised beyond the natural degree of heat in the blood just issuing from the heart; this seems to dignify that it is owing to an accumulation of blood, for the more blood in a part the more caloric escapes. It is more easy to conceive than describe, how any quick deviation from the natural state of parts, must excite pain; in chronic inflammation the graduality of

the change allows the nerves to become adopted to it, and the degree of pain amounts to nothing but a dull uneasiness; while in phlegmon the change is quick, the nerves not being accustomed to such action the pain is considerable.

Each kind of inflammation, seems to have its particular sort of pain, thus, Phlegmon excites a pain, joined with a sense of throbbing and heaviness, Erysipelas gives rise to a pungent itching sort of pain, & Arthray a burning and ~~itching~~ stiffness.

Some organs which naturally posess little sensibility, are remarked to become exquisitely sensible and painful when inflamed, such as bones, and tendons; The throbbing is described as depending upon the strong pulsation of the arteries, not in the part inflamed but in the arteries leading directly to it; the very first act of the vessels, when the stimulous of inflammation prevails, is similar to a blush, simply an increase or distention beyond their natural size, afterwards there is a separation of the principals of the blood, it being effused in the cellular texture in consequence of the extreme vessels giving way from debility, this is the cause of the soft, doughy, edematous tumours about the inflamed part, and an effusion of coagulable lymph, from inflamed surfaces of serous membranes, which becomes vascular and organised with great rapidity, so as to complete the stage of adhesive inflammation; in this way are produced those mecha-

rable adhesions, which are so commonly between the lungs and pleura costalis, the intestines and peritoneum- a similar effusion may take place from the mucous membranes, especially those of the lungs trachia, and alimentary canal; producing hollow cylenders corresponding with the form of those cavities: but this only happens when mucous membranes are the seat of violent and peculiar inflammation, and under other circumstances, they more readily effuse pus, than coagulable lymph; also when coagulable lymph is effused upon the surfaces of a recent wound- and the ends of a broken bone- it changes into a vascular mass, which ultimately forms a bond of union between the parts; new vessels are sometimes developed in coagulated lymph with surprising quickness- as is proved by an observation of Sir Ed. Home; in an operation performed by himself- for strangulated hernia- the hernial sack was opened and found to contain a portion of intestine six inches long- which on careful examination seemed quite smooth and without any extraordinary appearence of vascularity; twenty nine hours after the operation the patient died- on dissection the strangulated part was found highly inflamed- its external surface soft and covered with covered with coagulum- he found a fine injection in these distinct portions of lymph, demonstrated in each, a considerable artery, and a vain accompanying it. He says it can be proved, that these vessels may be formed in less

these twenty four hours.

There have been various opinions concerning the formation of these new vessels, according to meckel, they are continuation of the old vessels. Sommering demonstrated, by injections that the vessels produced in membranous adhesions of the chest did not proceed from the lungs to the pleura, but from this membrane in the situation of every intercostal artery; the same thing is represented by monro, he mentions a large membranous adhesion which connected the intestine and peritoneum together, deriving its vessels from the latter membrane: Mr Hunter was led to conclude that the blood was produced in the new formed coagulum itself, exactly as in the incubated egg: from the circumstance of his frequently observing red blood in small streaks, upon the surface, after the separation of the part that was united by this coagulum: And meckel thinks the account is rendered more probable by the fact of the formation of blood and vessels, in the new structure going precisely through the same stages as the incubated egg, inasmuch as at first, merely, tubes for the blood can be descerned but nothing like regular vessels; this is also the view that Sir Astly Cooper entertains of it.

There is one curious fact to be related yet, which is, that, whatever is the situation of the inflamed part it

is always most violent on the side nearest the external surface of the body, this was first pointed out by Mr Hunter, it occurs so constantly that it may be regarded as a sort of law in the animal economy, to prevent it from extending its ravages to the destruction of many important organs.

The causes of inflammation are divided into the remote and proximate. Mr Cooper thinks the epithet remote is badly chosen, for it comprehends many things which contribute immediately, as well as remotely, to the production of inflammation: in many cases we are able to trace the origin of it, to causes which act, either directly upon the part affected, or indirectly through the medium of those inexplicable sympathies which connect remote parts of the body together, as illustrations of the latter remark. Dr Thompson of Edinburg adverts to the effects of particular kinds of food, and small doses of arsenic, and other irritating substances taken into the stomach producing specific inflammation of the cutaneous texture; he thinks the expression, exciting causes, is more correct than the remote, these remote and exciting causes of inflammation are very numerous, but as they mostly admit of external violence, either mechanical or chemical inimitation, a full detail of them, would be superfluous; permit me to say however, that wounds, fractures, contusions, the bodymost

of fragments of bone. or other irritating extraneous bodies- a scald, a burn, exposure to cold- and the application of numerous irritating substances to parts; are the common exciting causes of inflammation.

By the term proximate cause. pathologists. generally mean. that state of the part affected upon which. the phenomena. peculiar to inflammation. immediately and primarily depend; Galen and Boerhaave. ascribe it to particular states of the blood and humours; Stahl, Hunter. and Cullen, all concur in imputing it rather, to an affection of the vessels. or to an increased action of the vessels. of the part affected, others to a debility or weakened action of the vessels of the part; and Dr Smith. professor of Surgery. in the University of Maryland. says it is not properly either, but an altered action, sometimes depending upon increased & at others a weakened action of the vessels, but more frequently an increased action. I must in this place. embrace the opportunity. and beg leave to disagree with our honourable professor in opinion. and concur with those, who advocate the theory. of inflammation. depending upon debility of the vessels, of the inflamed part- with an increased action of those nearer. or towards the heart. It seems to me. that I have never seen or heard an argument that does not go to advance the theory of debility. in Dr Smith's lectures

re upon the subject. She frequently made use of the phrase "Ubi irritatio. ibi Fluxus," when there is much irritation in a part the blood is invited there: now it is a mistery to me how this fluid can be invited to any organ, either by invitation or any thing else when the heart is placed in the centre of the body to propel the blood equally through every part, what does invitation produce in a part, before it can produce inflammation if it is not debility, the result of which is a dilitation of the vessels from the natural force of the heart, producing swelling and other symptoms peculiar to inflammation until at last the blood becomes so much accumulated, and effused in the cellular substance, as almost to prevent the passage of blood through that part. thus throwing it back, as it were upon the large arteries going there, increasing their action and thus continues until the heart feels its influence and produces a considerable degree of excitement throughout the whole system. Dr Wilson Philip's experiments, appear to me to be satisfactory, in demonstrating the proximate cause of inflammation, not only that but the treatment is sufficient to prove the pathology. By bleeding we diminish the force of the heart and arteries, and then use some local application, to strengthen the vessels, as for instance, cold. acetas plumbi, muriate of ammonia, and a number of other appli-

cations, all of which must be of that kind, when we wish to subdue inflammation by promoting resolution.

The treatment of inflammation may be divided into two kinds, General and Local. With regard to the former, the first indication by which we are to be governed is the pulse. if there is great arterial excitement, which is most generally the case, we are to reduce it as prompt and as speedily as possible, by such means as will diminish the flow of blood to the part inflamed. For which purpose there is no better remedy than abstracting blood (as I have said before) both generally and locally. Of how whatever be the difference of opinions, respecting the pathology of inflammation, there are none who writes upon it that does not give this as the most prompt and sure mode by which they can reduce the excitement. Thus by means of the lancet we abstract blood from the arm, it being the most convenient place, until we reduced the "vis a tergo" and if necessary remove the congestion in the part by cups and leeches, the quantity of blood to be drawn, should be determined by the united considerations, of the organ affected, the severity and urgency of the symptoms, the strength and age of the patient, the state of the pulse, and the appearance of the blood itself in relation to the buf

by coat. In injuries of the brain and Lungs, the patients sole chance of recovery, depends upon the boldest use of the lancet. Saline purges, diminish the quantity of circulating fluids, by increasing the secretion from the surface of the intestines Nauseating doses of Tartarized antimony prove serviceable in several ways, they remove that oppressive dryness of the skin which accompanies the fever attendant upon several local inflammations, they diminish the increased action of the heart and arteries in general, they restore the secretions, and lastly they promote the removal of costiveness——

The object of this essay being known to all of you, I deem it unnecessary to go further and describe the particular local remedies employed in the treatment of inflamation. I therefore conclude by submitting it to your consideration without further comment

Wm. Gibson

1311 Irving Ave.
Washington D.C.
July 3, 1913

To the Dean of the Faculty of
the University of Maryland
Medical School, Baltimore -

Dear Sir: - About the year
1892 Dr J. Edwin Michael,
then Dean, furnished me the
names of the physicians com-
posing the faculty at the time
of the graduation of Dr Wil-
liam Blanc Magruder in 1831.
- I promised Dr Michael that I
would send him a copy of the
article I was then writing a-
bout Dr Magruder as soon as
it was published.

But through circumstances
over which I had no control,

it has never been published until now.

It has been printed by the Columbia Historical Society of the District of Columbia, and I am now prepared to present to the University of Maryland Medical College a neatly-bound copy — if it shall consider it worthy of its acceptance.

I shall feel highly honored and gratified if your Administration files among its archives my humble tribute to, I believe, one of the very greatest of her graduates.

Will you kindly direct me whether, and where, to send the book.

Yours very truly

Robt. H. Harkness

On Canine Madness.

An
Inaugural Dissertation.
for
The Degree of Doctor of Medicine;
Submitted to the examination of
The Provost, Trustees and Medical Faculty:
of
The University of Maryland.
By
William Beanes Magruder.
of the
District of Columbia

Anno Domini 1831.

On Leaving Medical

"

(In

Inaugural Dissertation

The Degree of Doctor of Medicine

The Provost, Trustees and Medical Faculty

of

The University of Maryland.

By

William Beans Dagnall

of the

District of Columbia

Anno Domini 1831

Respectfully inscribed

to

The Medical Faculty of The University

of

Maryland.

To

Nathaniel Potter M. D.

Professor of the Theory & Practice of Physic.

and

Nathan R. Smith M. D. Professor of Surgery.

Gentlemen

Permit me to avail myself of the present opportunity of expressing the deep sense of gratitude I feel for the many advantages; which I, in common with the other Members of the Classes of Practice and Surgery, derived from your extraordinary and disinterested exertions; to place in our possession every means of attaining that information of which we were in pursuit. But there are other and peculiar obligations; under which I am placed to you Gentlemen; which will be a sufficient apology for my expressing towards you; my warmest sentiments of respect; and my lively interest in your future health and happiness; together with the prosperity of the institution, which is honored and adorned by your talents and acquirements.

I am Gentlemen deeply sensible of the obligations under which I rest

Yours with unfeigned respect

William B. Magruder.

A Dissertation on Canine Madness.

In treating of the subject which I have selected as the theme of this dissertation it is not my intention to innumerate all the cases of Canine Madness on record; nor to describe the various modes of treatment which have been recommended as applicable in this disease; this with my limited means would present insurmountable obstacles; and would, if practicable, occupy more space than it would be proper for me to devote to the whole subject.

Nor is it my intention to propose new theories, doctrines, or modes of treatment: this would perhaps afford ample opportunity for the display of ingenuity or speculative talent; but would be attended with little or no practical advantage; and however peculiar or original my ideas of the Pathology of this affection might be; they would as yet be too crude to afford matter of interest or instruction to any who are likely to peruse these pages; and besides all this, I have no experience from which to draw evidences of the truth of my opinions; and am not disposed to follow

the example of those who dive into the deep recesses and fertile gardens of antiquity; to cull flowers to decorate their beautiful theories; or to borrow foundations for their splendid edifices without condescending to give those from whom they had committed the theft even a glance of recognition; for in the language of an admired poet of antiquity;

"Novet cornicula risum
Furtivis nudata coloribus".

I shall content myself with merely stating what I conceive to be the best opinions of those already proposed; and the mode of treatment which holds out the best prospect of success; in doing this I shall advocate those opinions most recently proposed; indeed my main object in adopting this subject is to bring into view some facts which I believe are not generally known and which may be brought as evidence in favour of the plan of treatment proposed and so triumphantly advocated; in the lectures of the learned and ingenious professor of the theory and practice of Physic in the University of Maryland; from which most of the

facts and the history of the disease are principally drawn.

Canine Madness being looked on as one of the most dreadful scourges of Mankind; no country has been willing to own it as its progeny and Authors of different Nations have therefore laboured to prove that it did not originate with their country; but this certainly is unnecessary as the disease is undoubtedly as venerable as any of the "ills which wait on frail humanity" and has as strong claims as any other to have once inhabited the famous Pandora's box, although it is perhaps but of late years that it has made its appearance in some countries and has not yet arrived in some others as Egypt Syria Cape of Good Hope &c &c.

Canine Madness was placed by Dr Cullen in his class Neuroses and order Spasmi; this arrangement has I believe been followed in most other Nosological classifications. I will not presume to place my opinion in opposition to those of such Men as the illustrious Cullen; but will content myself by stating that according to the opinion of some distinguished Pathologists of the present day Canine Madness is an inflammatory disease; Others have supposed it to be primarily a disease of the lymphatic

system; the opinion which supposes it to be an inflammatory disease is the one in which I am disposed to place most confidence.

Canine Madness; as its name implies may originate in animals of the Canine Species as dogs, - wolves and foxes; but in none others. It may be communicated by the animal in which it has originated to any other and by that other may be propagated indefinately; Man can communicate the disease with as much certainty as any other animal; the disease after it has commenced in the dog; fox; or wolf; may be propagated to the greatest variety of Genera and Species without undergoing any change whatever in the virus; it will possess the same properties and will produce the same effects. Experiments have proved that the flesh - Saliva or any other part of a rabid animal may be taken into the stomach without its producing any sensible effect; The Saliva or what has been supposed to contain the virus may be rubbed on the skin with impunity.

Canine madness like every other effect must have a cause and therefore cannot originate spontaneously. It appears from circumstances which attend the occurrence of the disease that; that

cause is alternations of heat and cold; Canine madness seldom or never occurs in temperate or regular climates, as Egypt — Syria — Spanish America and The Cape of Good Hope; when it appears in this country it is generally observed to be in the Spring or fall when the weather is variable; seldom in the hot months of Summer or the coldest part of winter.

The cause of Canine Madness has been ascribed to a certain something in the throat of animals of the Canine species; by some supposed to be a worm; by others a gland secreting a poison and by others a nerve. But this explanation of the cause is only evading the difficulty; for if the disease depend upon this nerve — gland — or worm what brings this cause into action at the particular time at which the disease occurs; but even if this would otherwise solve the difficulty it is obnoxious to a still greater objection; VIZ: that this supposed gland — worm — or nerve has been removed from dogs & they afterwards have been ~~afterwards~~ affected with the disease in question. There have been many other causes assigned as giving rise to canine Madness; but it would be unnecessary to notice them in this place.

The latent period is very various; being from twenty four hours; to three- four- five- or six years; one case is recorded in which the poison laid dormant for twenty years. Bites on parts of the body which are uncovered are much more dangerous, than those in which the tooth has to penetrate clothing before entering the flesh.

Where a dog has bitten a human being and is suspected of being rabid; he should be confined and the symptoms carefully watched. He will exibit some strong deviations from his usual habits- as a depraved apetite in eating his own faeces & drinking his own urine;- running after every thing that may happen to be in his way however common, or trifling- he will still however seldom attack any one- he will as yet- exibit- the same fondness for his Master; he is however treacherous and very irritable, becoming angry on the slightest provocation; and snapping at those around him; his appetite is sometimes voracious; he is listless and melancholy. In the more advanced stages of the disease the animal becomes extremely anxious and impatient; he has an inordinate desire to gnaw every thing he meets with; and if confined will make strenuous efforts to escape with im-

espont and distressful cries, if successful in bursting from his imprisonment he will wander about seeking other animals to bite. The disease then becomes so well marked that it will be impossible to mistake it.

The symptoms of Canine Madness in the human being have been well described by authors; those most generally observed are; pain in the bitten part, the pain becomes wandering; chilliness; langour; lassitude; headache - low spirits - restlessness; want of apetite - disturbed sleep; after a short time all these symptoms begin to increase untill the occurrence of raving madness; and that symptom which has given the disease the name by which it is commonly known viz Hydrophobia; signifying fear of water; which is produced ~~from~~ by the pain and difficulty of deglutition. The patient now attempts to injure every one who comes near him; the disease takes on the symptoms of inflammation of the stomach and intestines and exibits all the marks of complete destruction of the nervous energy; there takes place difficulty of Micturition, priapism; pain in the urethra and Scrobiculi Cordis; and throat; the difficulty swallowing becomes greater; The patient now complains of cold & if he should get Asleep he will be suddenly awakened with

horrid dreams; his eyes are ferocious and penetrating; the appearance of his countenance anxious and Melancholy— sometimes pale and sometimes florid; he is affected with great and continual thirst calling incessantly for water and throwing it off with violence when presented to him; the mere sight of a fluid throwing him into convulsions. There is a sensation similar to that of the Globus Hystericus. The breathing now becomes difficult; the flow of saliva very troublesome and difficultly discharged; the delerium more constant the muscles of the lower jaw become relaxed. The pulse is variously described; in some cases being hard; frequent, and strong; in others overcome and oppressed; in others small and irregular &c &c.

Canine Madness is not always characterized by any great degree of weakness; instances have been known of persons running a great distance or making great Muscular exertions just previous to death. The disease has generally terminated in from two to five days from its commencement; the patient dying from the extinction of the nervous power or in a convulsive fit.

The Prognosis has been looked on by Physicians of all ages as of the most gloomy character; indeed so horrible is the spectacle of a human being laboring under Canine madness; so frightful their conduct and so inevitable has been the fatal termination that there have been many persons smothered to death by the direction of their friends and many others have fallen victims to this dreadful disease without an attempt to rescue them having been made by their physicians. But I believe I may express the hope that the day is not far distant when physicians will grapple with this, as willingly and with as much confidence of success as with any other disease of a violent nature and of imminent peril.

The treatment of Canine madness may properly be divided into Prophylactic and curative. It is generally in the power of the Physician to resort to all the means which have been suggested as prophylactics; these may be divided into local and general. The local preventatives are; excision of the parts about the wound with the knife; the application of Caustic Potash in solution; and the application of the actual cautery; but if the wound has deep

- situated in the vicinity of small bones or important blood vessells neither
ie excision; nor the application of the actual cautery can be effectual.
The best mode of local treatment, is to lay the wound open as far as the
tooth could possibly have extended; and with a small pointed syringe
eject a strong solution of caustic Alkali; or if this be too painful for
the patient; the Al: Terbenith or Tinct Lyttæ may be substituted
but with less probability of success; whatever local treatment is followed
it should be accompanied by the general means to be hereafter spoken of.
Mercurial Ointment might be used with advantage. The patient if of
plethoric habit should loose blood.

The internal prophylactics which have been recommended are various; many
of them however have been laid aside having been condemned by experience. The
preparations of Lead have been loudly extolled as preventatives in cases
of this nature and on authority which would justify their use; if we had
none others to which we could resort; with greater probability of success.
From the facts related by Professor Potter as having occurred in
the practice of his ~~father~~ father and in that of another physician
of this State; it appears that Mercury given to the extent of

during ptialism may be resorted to with more than probability and almost certainty of success; but strong as this evidence is we do not rest the point here; the learned professor above alluded to; with his friend the late Doct Barrow have experimented on dogs and found the remedy triumphantly to sustain its character as a prophylactic in cases of this nature.

I have been often told by my Uncle the late Doct William Beanes of Prince Georges County in this State; that during a practice of about fifty years, he had been consulted by many persons who had been bitten by dogs supposed to be rabid; (many of those dogs afterwards exhibited all the pathognomic symptoms of Madness) that he had treated many of these persons with the Mercurial Prophylactic and in not a single instance in which this treatment was vigorously pursued did the persons so treated; experience the slightest inconvenience from the wound except a salivation notwithstanding this the dogs by whom some of them had been bitten had propagated the disease to other animals. The same Physician informed me that he had been called to several persons labouring under well marked pathognomic symptoms of Canine Madness after having been bitten by rabid animals and that he had treated them successfully in every instance in which he

could establish a Mercurial action; and he found that the best mode of effecting this was to accompany the exhibition of the Mercury with copious bloodletting. Doctor Colgate had a case in which the patient was entirely cured by the above treatment. From a Knowledge of these facts it appears to me that the employment of Mercury in conjunction with the Lancet, holds out better prospects of success, than any other Method of treating Canine Madness. But in resorting to this mode of treatment the practicioner must not go to work timidly; but fearlessly; he must (if I may use the expression) dare to be wise; temporising measures will not do here; nor is there any thing to fear in pushing the Method of treatment to the greatest extent; for it is far better to carry these means to the greatest length than to tamely permit the patient to die with all the agonies of Canine Madness.

The End.

An Inaugural Dissertation.

on

The History of the Science of Medicine.

Submitted to the Examination.

of

The Provost,

Trustees and Medical Faculty

of

The University of Maryland.

For the degree of Doctor of Medicine.

on the seventh day of March 1831

by

John. C. Orrick of Maryland.

ntlemen. That every candidate for Medical honors shall give to the Public some specimen of his acquirements, is a duty imposed on him by the Laws of this University and with the view solely, of discharging this duty, I submit the following Essay. — I of course claim but little originality in the following pages. —

I proceed now briefly to consider the History of the Science of Medicine, without entering into detail and shall in conclusion make a few remarks on the character of our illustrious countryman Dr. Rush. —

In the early ages of the world, when the diet was simple and the climates inhabited by the Human race were of a mild and genial temperature, the seeds of disorders were seldom sown, either by irregularity or accidents, and never were fostered by the banefull influence of luxurious gratification; it is probable therefore, that while the pastoral life continued, men generally experienced an uninterrupted state of health, but, when ceasing to sojourn in rural scenes, they assembled together in Towns and formed more extensive Societies, they began to degenerate from their former good habits and fell into the corruptions usually incident to a promiscuous mass of inhabitants, vice, then succeeded to innocence, intemperance, expelled Sobriety and health, was daily sacrificed to the prevalence of sensual depravities, natural causes likewise concurred to engender and

foment deviations from the standard of health; the bulk of the people who had abandoned the pursuits of agriculture & the rearing of cattle, were under the necessity of having recourse to manual occupations for a subsistance, and many of these being of a sedentary kind, the constitutions of men which were before liable to be relaxed by the warmth of the climate would contract a still greater disposition to disorders, arrising from that cause. To such constitutions, formerly inured to the wholesome air of the country, the polluted atmosphere of populous towns, neither ventilated by the gales, nor refreshed by the showers of other latitudes, would prove extremely prejudicial, whilst in addition to this powerful influence, the indelicacy common to a rude state of society in manufacturing towns, the want of Soap, for the purposes of washing and the want likewise of the periodical rest of a Sabbath, to induce a change of apparel, all these

causes operating in conjunction, could not fail to produce both external and internal diseases. — From this Epoch, therefore, of the human race, may be dated the origin of diseases; which by weakening individuals and entailing on their offspring an hereditary predisposition to infirmities, would extend the boundaries of morbid affections and disseminate among the people distempers of various kinds. — It may well be supposed that a people who had been accustomed to see men die, only of unfortunate accidents, or of the effects of old age, would be surprised at the novelty of diseases, which terminated in the extinction of life. Entirely ignorant of Physical causes, they would probably ascribe such extraordinary incidents, to some supernatural power, and superstition, giving rise to a thousand phantoms of the imagination, charms & enchantments, became the means by which they endeavoured to cure, as well as to prevent, every malady. In proces

of time, experience and the result of observations, the sole rational guide in the cure of diseases, began to have an influence on the public mind, A general similarity in the cases of different patients, afforded presumption that they were affected by the same specific causes; and whenever accident discovered, or was imagined to discover, any virtue in herbs, which perhaps were first tasted in the manner of aliments, the precious remedy was held in veneration and recommended to every person whose complaints had any resemblance to those in which it was supposed to have produced beneficial effects. Such, was the manner in which the use of Medicine was first introduced, but many ages were required to bring to perfection a science, which can be completed only by faithful observation and experience, The importance however of health, to the happiness of mankind, soon rendered the knowledge of curing diseases

an object both of fame and emolument, and there arose in different quarters of the Globe, a number of Practitioners, who devoted their attention, solely to the cultivation of this abstruce and important subject; among those who afterwards appeared in the character of profesed Physicians, the most illustrious was Hippocrates, a Greek, who was supposed to have flourished about four hundred years before Christ.— This extraordinary man, may be considered as the first that ever attempted to erect the Science of Medicine upon a solid foundation.— In the treatment of diseases, his chief object was, to observe the progress of nature, with a scrupulous attention and according to the indications thence arising, to accomodate the method of cure; the numerous writings which he composed are extant to this day, and remain a monument of his penetration and judgment,

as well as of unparalleled industry and severe application, to promote the advancement of Medical knowledge. But to tread in the footsteps of Hippocrates required a mind like his own, it was easier as well as more expeditious to prescribe fantastic laws to nature, than to receive them from herself and to cooperate with her, as the great Hippocrates had done. In subsequent ages therefore, it became a frequent custom among Physicians to be governed in their practice by some visionary hypothesis, or system, invented by their own imaginations and so much unconnected with facts, as to be utterly repugnant to every one of the plainest dictates of observation and experience; among those who adopted this extravagant plan, we find Erasistratus, condemning in the strongest terms the use of Bloodletting and Purgatives, as remedies equally infamous and dangerous. Asclepiades who pursued a similar predilec-

tion for hypothesis; supposing that health depended on the just proportion between the pores of the body, and certain corpuscules which they are destined to transmit, and that it was impaired whenever these corpuscules were impeded in their course, he prescribed exercise on horseback in the most violent fevers, he advanced it as a maxim, that one fever is to be cured by raising another, and that the strength of the patient is to be exausted by watching and the endurance of thirst, the practice of Asclepiades was strictly and severely conformable to his principles, for he would not allow his patients to cool their mouths with a drop of water, during the two first days of the fever, but he indulged those who were Phrenetic, in the use of wine, even to intoxication.

Galen who flourished five hundred years after Hippocrates, followed the plan of that celebrated Ancient in the treatment of diseases, but differed essentially from him

by indulging, in the most extravagant notions and idle disputations respecting medical Theories, he introduced a false and baneful theory, concerning the primary quality of heat and cold, dry and moist, which, probably led him into dangerous errors in the composition of Medicines. The reputation of Galen however continued for many years to support the system which he invented and his authority was almost as great in Medicine as that of Aristotle in the schools of Philosophy, after the downfal of the Roman Empire, and when the inundations of the Goths and Vandals had almost completely, exterminated literature of every kind from Europe, Medicine though a practicable art, shared the same fate, with more abstract sciences; Learning in general, banished from the seat of Arms, took refuge among the Eastern nations, where the arts of peace still continued to be cultivated; To the Arabian Physicians as they have been called

we are indebted both for the preservation of Medical Science, as it subsisted among the Greeks & Romans and likewise for the discription of some new diseases, particularly the small pox. Though for the most part merely copiers of the Greeks they made nevertheless, some improvements; They were the first who introduced Chemical remedies, though of these they used but few; they added a great deal to Botany and the Materia Medica by the introduction of new drugs; chiefly of the aromatic kind, from the East, many of which are of considerable use; but Anatomy was not in the least improved by them. With regard to their practice, in some few particulars, they deviated from the Greeks, their purging medicines were milder than those formerly in use, and even when they prescribed the purgatives of the ancient Physicians, they gave them in smaller doses than was usual with the Greeks & Romans The same may be said of their manner of

bleeding, which was never, to that excessive degree practised by the Greeks; they differed however from Hippocrates in only very trivial circumstances which produced violent controversy. The question was, whether blood in a pleurisy ought to be drawn from the arm of the afflicted side or the opposite; Hippocrates had directed it to be drawn from the side affected, but the Arabians following some other Ancient Physicians, ordered it to be drawn from the opposite one; Such was the ignorance of a later age, that the University of Salamanca, in Spain, made a decree; that the person who should dare to let blood from the side affected should undergo some penalty, and they endeavoured to procure an Edict from Charles V. to second it; alledging that the other method was of no less pernicious consequences to Medicine, than Luthers Heresy was to Religion, when after many ages

of darkness, which had destroyed almost the whole of Ancient Literature, learning was restored in the fifteenth Century, it was the System of Galen alone, that the Physicians of those times became acquainted with, and during the Century following the Study of Physicians was almost entirely employed in explaining and confirming that System. —

Improvement still continued to go on, for we find that in the sixteenth Century, Paracelsus had laid the foundation of a Chemical System, which was in direct opposition to that of Galen; and by the efficacy of the Medicines employed by himself and followers, his System came to be received by many; but the Orthodox Physicians continued to be Galenists, and kept possession of the School, until about the seventeenth Century.

Various revolutions in the Theory of Physic, have since taken place, and each of them whilst it existed, has been held in the highest esteem

one sect endeavoured to account for the phe-
-nomena of diseases on the principles of
mechanism; another maintained the general
law of nature respecting diseases, to be that
of actual fermentation; a third, in explanation
of morbid phenomena asserted, the univer-
-sality of spasm. — The great Boerhaave,
ascribed diseases to rigidity or laxity of the
Fibres, and acrimony or lentor of the fluids;
and the reigning doctrine at present is, on the
one hand, a debility of the fibers; and on
the other, a susceptibility of excitement. —
It is to be regretted, that in a science of
so great importance to the world, as that
of Physic, men should in the ardour of
forming systems, adopt as the basis of their
superstructure, opinions which have no
foundations in the animal economy and
some of them even manifestly repugnant,
to fact and observation, a strong imagi-
-nation may give, to almost any system

an air of plausibility which will render it current for a time; til some inquisitive genius either dissatisfied with its foundation or pregnant, with a system of his own, shall powerfully exert his efforts and produce a revolution; it is indeed often extremely difficult to pronounce an opinion on the truth, or fallacy of systems in Physic, the only test by which to judge of them is, by an appeal to their utility in practice; yet the experiment is so liable to indecision, from various circumstances, that, unless the result be confirmed by a number of trials, and indubitable testimony, must still be regarded as problematical; In internal diseases the cause proxima, as it is called, is an invisible object, and can be judged of with certainty only by its effects, at the same time it is probable that there are general laws of nature, which operate Uniformly ~~[illegible]~~ in the course of diseases, though on account

of various circumstances, they cannot be clearly ascertained.— Of all the transactions recorded in the History of Physic, the most important is the discovery of the circulation of the Blood, which will transmit the name of Harvey to the latest posterity; This single discovery has tended more to the improvement of Medicine than all the hypothetical visionary systems that ever were invented notwithstanding the fallacy of the various Theoretical Systems which have prevailed in Medicine, the use of ratiocination, or just reasoning in Physic is absolutely necessary and without it the science would be nothing more than a mass of Empiricism or at best a system of vague, dubious and unsupported conjectures, but in order that the mode of reasoning employed, may be of real utility, it must necessarily have its foundation in established and incontrovertible fact.— It is such fact and such reasoning that constitutes

the very essence of Physiology, or the know-
-ledge of the laws by which the animal eco-
-nomy is conducted, This knowledge is only to
be acquired by the study of Physic and must
have for its basis the Science of Anatomy.—
But without, the advantage of such erudition,
it is possible for person of good understanding
both to learn and to practice the general
rules of Physic, in the greater part of
the common diseases.— Such a person
may be sufficiently well qualified to
observe the symptoms described in books
of Physic, and thence, to acquire a probable
opinion, of the existence and state of parti-
-cular diseases, although he may not be
able to discriminate between the operation
of the Medicine and that of the Malady,
nor to trace the concatination between cause
and effect. I come now to the fulfilment
of what I proposed in the commencement-
viz. some remarks on the character of

our illustrious countryman, Dr. Rush.

I should have introduced the name of Sydenham and other worthies who have contributed to the Science of Medicine, but circumstances prohibit me.

When entering into the character of the great Rush, the scholar, the philanthropist and the Christian, it would be folly for me to attempt to do justice to the character of a man so universally distinguished. This illustrious Physician, has been admired and celebrated, not only by his own Countrymen, but by most of the nations in Europe; he revived the industry of the Ancients in some degree in collecting and recording facts, in contrasting theories, drawing conclusions and by close application both in point of Study and observation, he has immortalized himself by establishing a system which is orthodox and doubtless will to the end of time stand the test of the strictest scrutiny. In a word

he has simplified Medicine, for he wrote from nature, or rather nature wrote through him and finally he produced a complete revolution in Medicine, which involved in its consequences a new Aera in the life and happiness of the human race.

In this humble and remote tribute to the memory of Dr. Rush, permit me to say, if he had not a Stone erected to his memory, or an inscription made to rescue his ashes from insult; still! he never could be forgotten by men of Science.

An

Inaugural Dissertation

on

Acute Phrenitis

respectfully Submitted

to the

Examination

OF THE

Provost, Trustees and Medical Faculty

of the

University of Maryland

by

Thomas J. Rawlings

Anno. 1831

To the Professors

of the University of Maryland

Gentlemen

You being acquainted with the object of the following Thesis; it is submitted to your consideration without further comment.

To Doctor Nathan R. Smith
Professor of Surgery in the
University of Maryland

Sir

Owing to your celebrity in your profession
and your high moral worth, there is not an individual
to whom I could with more propriety dedicate the following
essay and for the instruction and many kindnesses
you have bestowed on me while your pupil I feel
grateful, and hoping that you will not estimate my
respects by the merits of the few sheets dedicated,
and wishing that you may long live to enjoy the
honors you have already won, it gives me pleasure
thus publicly to declare my sentiment.

I remain your obedient
and respectful pupil

Thomas J. Rawlings

An Inaugural Dissertation
on
Acute Phrenitis

As it is obligatory on all those who are candidates for the degree of Doctor of Medicine to write and defend an inaugural dissertation on some medical subject. I have therefore been induced to select this subject, but am convinced that it is not expected that I can impart the least original information on a subject that has been so fully and ably discussed, from these considerations I shall content myself by giving the causes symptoms, terminations and treatment.

The disease occurs more frequently in warm than in cold and temperate climates. it is said by some distinguished writers that persons of a plethoric habit are most liable to it. various causes have been assigned for its production. All those which directly stimulate the brain or its membranes and particularly those which increase the impetus of the blood to the vessels of the brain

among the most frequent may be ranked contusions especially such as produce or occasion fracture of the cranium, and is therefore more the object of attention with the Surgeon than the Physician. It has occurred idiopathically more particularly in hot climates, and has been produced by great fatigue under exposure to the rays of a vertical sun. In this country it is occasionally observed originating in anxiety of mind, or, the excessive use or abuse of ardent Spirits in a plethoric habit of body

Genuine Phrenitis occurs as a consequence of erysipelas of the face, violent fits of passion, sudden exposure to cold, after great heat, excess of Venery, suppressed eruptions, menses and piles, various kinds of poisons, want of Sleep, it is also produced by exposure to intense light

It arises in a Sympathetic form, as a consequence of Typocha, worms, various exanthemata and Hydrophobia,

Phrenitis may be distinguished from

mania by the intensity of its symptoms, the suddenness of the attack, the violences of the fever, by the throbbing of the arteries, and the beating of the temples which occur in Phrenzy —

For the most part though not always a hurry and confusion of the mental powers, a wakefulness and unsteadiness of mind which is rarely or perhaps never met with in Manial

The fullness of the features, and eyes, redness of the face are also striking features or symptoms of Phrenitis — In the delirium of low fevers these last symptoms are wanting, for the face is shrunk, sallow and pale and the eyes are glassy which sufficiently distinguish it from Phrenitis

Phrenitis, or acute idiopathic inflamation of the brain or its membranes is characterized or known by the following symptoms and often makes its attack with a sense of fullness in the head flushing of the Countenance violent inflamatory fever redness and turgescence of the face and eyes, intole-

rance of light and sound, cerebral compression, or acute pain in the head, constant watching with restlessness, the pulse being full but in other respects natural, and above all early and fierce delirium; it is preceded by a temporary loss of recollection, uneasy disturbed sleep, pains in the back of the neck shooting into the head and suppressed urine.

It sometimes commences with pain or a peculiar sense of uneasiness in the head, back, loins and joints in some cases with tremors of the limbs, and intolerable pains of the hands feet and legs

It now and then attacks with stupor and rigidity of the whole body, sometimes with anxiety and a sense of tension referred to the breast often accompanied with palpitations of the heart

Sometimes nausea and a painful sense of weight in the stomach are among the earliest symptoms in other cases the patient is attacked with vomiting, or complains of cardialgia or heart-burn, and griping pains of the bowels.

In other cases it is felt principally in the forehead or occiput the redness of the face and eyes generally increase with the pain and there is often a sense of heat and throbbing in the head. the Countenance acquiring a peculiar fierceness; these Symptoms for the most part do not last long before the patient begins to talk incoherently and to shew other marks of delirium. Sometimes however, Sallman observes, that delirium does not comes on until the fifth or sixth day.

The delirium gradually increases until it arrives at a State of Phrenzy the face becomes turgid the eyes start and seems as if bursting from their Sockets, tears and Sometimes even blood flowing from them, the patient resembles a furious maniac from whom it is often impossible to distinguish him except by the shorter duration of the Complaint.

We Should (a priori) expect in Phrenitis Considerable derangement in the different organs of sense which so immediately depend on a State of the brain.

When the intimate connexion that subsists between the brain and every other part of the system is consi-dered, the variety of the symptoms attending the commence-ment of Phrenitis is not so surprising, nor that the Stomach in particular should suffer which is so remarkably sympathizes with the brain.

The pain in the head soon becomes more consi-derable and sometimes very acute.

"If the meninges" says Dr. Fordyce "were affected, the pain is acute, if the substance only obtuse and sometimes just sensible." Dr. Cullen remarks. "I am here, as in other analogous cases, of opinion that the symptoms above mentioned of an acute inflamation always mark an inflamation of membranous parts and that an inflamation of a parenchymia or substance of a viscera exhibits at least, commonly a more chronic inflamation."

The seat of the pain is various. it sometimes seems to occupy the whole head, sometimes although more circumscri-bed it is deep-seated and ill defined

The eyes are incapable of bearing light and false vision particularly that termed musco volitantes, and flashes of light seeming to dart before the eyes are frequent symptoms. The hearing is often so acute that the least noise is intolerable, sometimes on the other hand the patient becomes deaf and the deafness ~~of the~~ and morbia acuteness of hearing sometimes alternate

The eyes sparkle, the pain increases the ideas become confused and the inflamation of the brain becomes thoroughly established

Acute inflamation of the brain is a disease of great danger and the following morbia appearances have been noticed after death. When the dura mater is inflamed, effusions of Coagulated lymph sometimes takes place, and adhesions form, but these appearances are not very common, but is more usually found covering a portion of the membrane or it is eroded by ulceration but the latter is by no means frequent

Inflamation of the pia mater, when it runs high generally proceeds to suppuration; that of the

arachnoid membrane to thickening of its structure and probably also to serous effusion

Inflamation of the substance of the brain seldom extends over any large portion of that viscus; its next usual termination is in abscess

Treatment of Phrenitis

Phrenitic inflamation is to be conducted on the common principle, but the measures of depletion must be prompt and vigourous proportionate to the violence of the symptoms and the importance of the organ attacked

It is the opinion of the learned Gooa that this disease cannot be treated with success as inflamation, by resolution; for resolution is the only means by which a cure can be effected in this case

Copious & repeated bleedings must here therefore be the first place, the blood must be drawn rapidly from a large orifice

The head should be shaved as soon as possible and always kept moist with napkins wrapt round it dipt in cold vinegar or equal parts of water and the neutralized solution of ammonia or what is still more preferable ice water or pounded ice put in a bladder and covering the head with it as with a cap— the posture should be erect & the blood should be determined to the extremities by dipping the feet in warm water

Antimonial and mercurial preparations may be given to promote the several discharges & diminish arterial action to which purpose Digitalis also may powerfully concur

It is the opinion of our learned & able professor of Practice that Phrenitis is usually under the command of the antiphlogistic means like any other inflamatory disease provided that means be used commensurate to the exigences of the case in the first instance —

Among the intimate connexion which subsists

and in an erect posture, the nearer the blood is drawn from the affected ~~part~~ organ the better chance it gives us of success —

The temporal arteries and the jugular veins have been recommended as the most effectual vessels to open but from various reasons it is better to begin with drawing the blood liberally from the arm even to Syncope, and when the pulse rises, it must be repeated and in quantities sufficient to keep down the local Symptoms

If the patient should be weakened by the first bleeding, then leeches or cups should be applied to the forehead and temples, and thus the Symptoms may be arrested and the other modes of depletion must be put in practice; first purging with equal parts of Calomel & Jalap ten grains of each, by Senna & Manna or glauber or Epsom salts assisted by injections of salt and water, or calomel alone may be given with propriety, in doses sufficiently large to evacuate the bowels thoroughly —

It is also the opinion of our learned professor Dr. Potter that plunging or submersing the patient in cold water until the patient acknowledges it even to syncope is the most useful part of the treatment in the disease next to blood letting

After the system has been sufficiently reduced and the general action is abated and the pain and local symptoms of local irritation remain, blisters to the back of the neck, behind the ears or to the temples, each perhaps successively when the disorder is ~~perhaps~~ lessened by proper evacuations may contribute very much to obviate internal mischief, sinapism may also be used in the decline of the complaint, when an irritable state of the brain appears. The room must be kept airy, cool, dark & quiet, the diet should be spare composed of easily digested articles

Cold acidulated drinks may be taken freely with propriety; Nitre should be given in moderate quantities, repeated frequent as the

Stomach will bear in doses of fifteen or twenty grains every two hours, with minute doses of tartarised antimony so as to excite nausea avoiding however vomiting as it will encrease the symptoms —

All Stimulating substances must be avoided, such as opium, hyoscamus, cider beer &c

Acute inflamation of the brain and its membranes sometimes run into chronic inflamation which is by no means uncommon

It seems to occur in some cases as a consequence of falls & blows on the head but in most instances its origin is altogether insensible

This Inaugural

Dissertation on the Physiology

of the Liver is submitted for

Examination to the Provost

Trustees And Medical

Faculty of the

University of

Maryland

By

A. H Mason

of

Virginia

1831

Physiology of the Liver

"What shall be first speak for our excuse?
Or shall we on without apology" — Romeo & Juliet

"——"

From the earliest period that Physiology assumed a degree of importance as a branch of Medical Science considerable diversity of Opinion has prevailed relative to the function of the Liver: and whilst by the researches of enlightning genius many points are placed beyond the limits of disputation, the ardour for speculations and the revolutions of opinions still maintains for others that uncertainty which throws over them the veil of obscurity, and which too have defied the labours of the brightest ornaments that have ever adorned the profession of Medicine

In entering upon the investigation of this subject I do not entertain the vain hope of advancing opinions that will have the slightest claim to originality, or such as will be received as orthodox. It is my humble province to go forth and select from the records of Medical Science the views of authors that have from reason and plausibility the fairest title to adoption.

I am

I am aware that the views of Physiologists as to the function of the Liver are exceedingly discordant, and to arrive at correct conclusions is not the work of a tyro: it must be reserved for those, the splendour of whose minds shall emulate the examples of the illustrious Hunter and Bell, and serve as "Pillars of cloud by day and Pillars of fire by night" to guide us through the abysses of Science to the desired haven.

Contrariety of Opinion must ever prevail upon a subject which affords no means by which to test infallably its use. We are therefore not to look for unanimity of sentiment relative to this subject.

Were this question placed upon a foundation so firm as never again to be convulsed by the disputes of Opinion, or the cavils of contending theorists, I am sure that it would be of no essentially practical advantage, in rescuing mankind from disease, or soothing the troubled scenes incident upon age, or divesting death of even part of its anguish; yet it is pleasant not only to know the function of every organ in the human frame, but also the particular manner

in which

in which it fulfills the object for which Nature designed it. But may it not be justly said, that he who aims at such perfection in Physiology, hunts after that which is as unattainable to the human mind as the electricity of the clouds when wafting through the airy Ocean would be to the grasp of an infant's hand?.

"The Liver is the largest gland in the human body, situated in the upper part of the cavity of the abdomen, and anomalous to every other in having its secretion produced from venous instead of arterial blood. "But even this is denied by the high authority of Bichat: and as some have supposed with seeming plausibility. His principle objections to this almost universally conceded point: are that the venous blood does not bear so near a relation in quantity to the bile produced, as the Arterial: and that the volume of the hepatic duct was not proportionate to the vena porta. Such objections certainly do not go to invalidate the belief that the bile is produced entirely from venous blood. We cannot accuse Nature of any useless devices in her

in her construction of the human frame; and to suppose that all the blood which supplies the viscera of the abdomen with nourishment, after it fulfils that office and is conveyed to one common trunk which divides and subdivides in the substance of a gland, without answering some useful end is surely ascribing unnecessary complication in the animal machine.

By adverting to the history of other glands, we are directly led to declare that we conceive the objections of Bichat altogether gratuitous: unsupported by reason & sanctioned by comparison. For example, the quantity of urine secreted by the Kidneys maintains a greater relative proportion to the blood sent through the renal arteries, than does the bile even to the quantity of blood transmitted through the Hepatic artery. As well might we infer that a specific quantity of grain when submitted to distillation would produce a like quantum of Spirit of every given strength, as that an equal amount of blood when sent to dissimilar glands, would result in the secretion of similar proportions of heterogenious matters.

The Voltaries

The votaries to the opinions of Bichat consider that the case related by Mr Abernethy in which the Vena Portæ instead of Ramifying in the substance of the Liver entered directly into the Vena Cava ascendens, is "confirmation strong as proof of Holy Writ" in support of the doctrine for which they contend. Though we entertain deference for the views of such physiologists, a due regard for others who stand deservedly high on the lists of fame, induces us to say they have enlisted under false banners. It is a trite adage "that a drowning man will catch at straws": and in this case it is strongly exemplified. Indeed we can advance no argument, nor cite any case that so strongly corroborates the views we now wish to enforce. The quantity of bile here elaborated was infinitely less than under ordinary formation; nor are we told that it differed from common bile in its chemical properties. Unbiased by a desire to establish a favourite theory, the conviction is irresistably forces upon us, that in this anomalous instance published by Mr Abernethy, the column of blood sent through the Hepatic artery after it went to the nourishment of

ishment of the Liver, and was converted from Arterial into Venous, served for the secretion of the minute quantity of bile that the case presented. It cannot be maintained with any show of plausibility that fluids differing materially when subjected to the influence of the same gland, would result in the production of a substance altogether analogous.

If the bile were secreted from arterial blood, Why was the quantity diminished in this case? Have we been told that the volume of the Hepatic Artery was diminished proportionately to the amount of bile? Such ought to have been the fact if they wished to make out a correct issue from this case.

Had it been intended that the Arterial blood sent to the Liver should yield the bile independently of any agency on the part of Venous Why are we presented in the abdomen with an anomalous construction? In every other case arteries have a corresponding vein or veins, but here; after the blood has performed the important function of nourishing the viscera of the abdomen, it is returned to one common reservoir

reservoir, which divides and subdivides in the substance of a gland ad infinitum.

"The annals of Anatomy furnish us with three cases of formation similar to the one cited by Mr Abernethy. vid Lieutaud "Hist: Anat: Med:- Huber obs: Anat: p 34- Lawrence Med: ch: "Trans: Vol 5th. We consider any further consideration of this point useless.

Magendie whose untiring zeal and enviable genius place him high on the lists of Physiologists, thinks it not improbable that both venous and arterial blood may serve the purpose of secretion, and says that the Anatomy of the part seems to favour this inference: for injections show that all the vessels of the Liver. Arterial. Venous. Lymphatic and excretory. communicate with each other. "This objection could apply to the opinion which by common consent seems to have been granted. viz that the arterial blood was required for every other secretion save that of the Liver: because injections will pass in many other glands from one set of vessels to all others.-

We have now advanced to a point in this discussion which it must be acknowledged is fraught with perplexing

perplexing difficulties. In adverting to the use of the Bile we shall strike a Medium between those who on the one hand contend for its recrementitious quality, and such as on the other maintain it to be wholly excrementitious. In common with many we consider it to be excremento-recrementitious. That the Liver is an organ for the elimination of some effete principle of the blood, and that the bile performs the subsidary office of stimulating the intestines favouring their peristaltic action. In advancing this view of the subject we are urged on, benchended with less timidity, because we are aware that we are going in unison with one whose reason and eloquence placed what he said almost beyond the limits of refutation. The late Professor Wells, whose memory will ever be revered by those who knew him, and whose name will need no monumental record to transmit it through the channels of fame to posterity, advocated this doctrine.

To arrive at correct conclusions upon an intricate point in Physiology, we must borrow aid from comparative Anatomy, and go back and trace man in each

Progressive

progressive developement from his fœtal existence to puberty.

In considering the structure of some of the inferior animals we are induced to infer that the bile does not serve an important part in the process of digestion. From the fact that the Ductus Communis Choledochus enters the alimentary canal at its superior portion, and at a point too where the most important change is wrought in the alimentary mass, some still tenaciously adhere to the doctrine that the bile either acts chemically, or in some other inexplicable manner in separating the chyle from the Chyme.

Gmelin and Tiedeman in order to establish a favorite theory have erroneously stated that in some classes of inferior animals, the entire quantity of bile secreted was poured directly into the rectum. We have examples of a division of the excretory duct of the Liver, one branch taking the usual direction, whilst the other entered the lower intestine. This certainly combrates the opinion that the secretion of the Liver is principally excrementitious. For what an organ is to one animal, so is the same organ to a different animal: and if the bile were this useful adjuvant in the process of digestion, why is it sent beyond the sphere of

sphere of assistance

Experiments were instituted by Gmelin & Tiedeman to prove that in addition to the use we have assigned the bile, it prevented the putrifaction of the contents of the intestines. We must here remark that we cannot place implicit confidence in the statements of these gentlemen. For they set out to prove that the Liver is an Organ, taking from the blood its impurities, and by way of giving semblance of plausibility to their theory, agree that the bile performs some subsidary office, after it has passed into the duodenum. But in their eagarness to inforce the first point they completely subvert the second by an incorrect statement: which has been previously pointed out. Even admitting the correctness of their assertions, we are not disposed to believe the bile an antiseptic. Physiology is strikingly different from Pathology. The circumstance of placing a ligature around the gall duct produced disease: and we could not justly infer that the same phenomena would result as in health. They say that when the ingress of bile was prevented putrifaction took place much more readily. Every one is familiar with the fact that in aneu-

rismal

aneurismal tumours so soon as the artery is much diseased, Co-
agulation of the blood within it seems. There seems to be a prin-
ciple of preservation inherent in vitality.

Certainly no slender support to our argument is deduc-
ed from the circumstance of the secretion of bile being car-
ried on in hibernating animals. In them the process
of assimilation is not required. It would seem that they
derive their support from the adipose matter contained
in the cellular membrane, which is taken up, and em-
ptied into the sanguinary vessels by the absorbents. The
blood in these cases is denied the influence of the at-
mosphere, and without the animals possessed within
themselves some purifying agent, the blood would
pursue the rounds of the circulation unaltered, and
the creatures thus consigned by natures law, to live for
a period apparently unmoved, would wane beneath
the impositions enforced upon it; but for the purification
of this vivifying fluid. And let me ask what this agent is? Do
I expose myself to the charge of rashness when I proclaim it
to be the Liver? Surely the greatest fanatic to an ad-
verse theory will admit that it savours of plausibility,

and the

and the more particularly from an acquaintance with the fact that the size of the Liver is generally inversely to the capacity of the Lungs. This organ too, like the Lungs effects a change upon the blood after it has served the purpose of nutrition.

It is seemingly the province of the Liver in the fetus, to perform a work imperfectly, which is after birth devolved upon the Lungs: for during the parasitic existence of the fetus, the Liver preserves a preponderance in point of size over other parts of the system, which it yields after the action of those organs commences, which are destined as the medium by which the atmosphere gains admission to the blood, to take from it its impurities, and scatter them beyond the limits of contamination. Although digestion is not carried on in the fetus, we observe that bile is secreted. But it has been contended that this is no proof in support of the excrementitiousness of this fluid; for it has been said that this function is assigned the Liver, to fit it for what it is in after times to perform. But we could ask why it is that every

other secreting

other secreting gland in the body, is not subjected to the same action, that it may the more readily fulfill the end for which it is designed? That the placenta, as has been taught by some, combines the two offices of being the medium for the transmission of nutriment from the mother to the child; and also of effecting the entire revolution in the blood that prepares it for the support of fetal system, we are unwilling to admit. Our view of the subject is, that the umbelical vein act the part of absorbents, taking from the circulating blood of the mother so much as is required for the growth and perfection of the fetus. Because it is evident that if the placenta wrought that change in the blood which fitted it for the nutriment of the child, and as too no digestion is carried on here, little advantage could be derived from the circulation of the blood in the substance of the Liver. But this is notwithstanding the case, and we likewise see that the result of the circulation in the gland alluded to is the production of a fluid bearing strong analogy to the bile found in the

adult

adult. The relative quantity of blood circulated through the Liver after birth is infinitely less than before: for then the large quantity brought to it by the umbilical veins is cut off by their obliteration; simultaneously with which the pulmonary arteries become pervious, and through them the blood gains access to the Lungs.

In support of the subsidary use assigned the bile our remarks will be limited. Facts connected with pathology have promulgated the notion that the bile after it entered the intestines, was essential to the process of digestion; because when there was an inordinate or diminished secretion this process was imperfectly performed. We are aware that nothing is better calculated to disarrange the nutrient functions than diseases of the Lungs: so also may an undue performance of the Liver, in eliminating from the blood its impurities, have a tendency to disarray the general system, and interfere with digestion. That the bile does stimulate the intestines, favouring their peristaltic actions seems

probable

probable from a reference to the circumstance that when this fluid is profusely elaborated we invariably have a laxity of the bowels: whereas if the quantity be diminished costiveness is almost a universal attendant.

We might have expatiated on this subject much more copiously had we sallied forth amidst the rich recesses of Medical Literature, and vigilantly sought after the speculations of those who are adverse to us, and undertaken their refutations. But we are content with delivering a plain and unvarnished statement, bottomed upon the views of those who have preceded us. In our present state of advancement towards the acme of perfection in science; and when the labarynth of once imagined inscrutibility, is thrown open, and the very arcana of nature is now shown forth in a burst of illuminated simplicity a typo has little to expect. The hand of genius too has so frequently traversed the walks of science, and made impressions so solid, so durable that it is reserved for the present age alone to pursue them, but can leave no trace behind. Originality we claim not. We only hope this plausible, and with it passable —

An Inaugural Dissertation

On

Cynanche Trachealis

for

The Degree

of

Doctor of Medicine

Submitted

To the Examination

of the

Provost, Trustees

and

Medical Faculty

of the

University of Maryland

by

Enoch George

of

Maryland

March 1831.

Cynanche Trachealis—

subject before us, is certainly a very interesting one, in whatever point of light
is viewed. When we take into consideration, the tyranny with which it has hereto
exercised its power, the violence of its attack, & the invariable fatality of its
mination, unless promptly arrested by an energetic and judicious mode
practice, and the thousands of our fellow beings, it has consigned to a premat
grave, it is certainly a subject well worthy the talented dissertations, and
philosophic research, which has been bestowed upon it by the physician
the highest celebrity— It is pleasing to reflect, that the labors of the profess
have not proved abortive— Its pathology is now well understood, and its
atment if the physician be called early is easy and certain—

Cynanche Trachealis or and inflammation of the mucous membr
of the trachea, was not well understood by the ancient authors—
first clear account of this disease is to be found in the letters of
antino Ghisi, written in the year 1749— In the year 1765 Dr Home of Edinbu
favoured the profession with a treatise on the subject, entitled an Enq
y into the Croup— To Dr Cheyne we are indebted for a full and lucid
count of the disease, written in 1809 and entitled, the pathology of
membrane of the Larynx and Bronchia—

The diversity of appellations which this disease has received, evidently shows
the obscurity in which its pathology was formerly involved—

Doctor Millar has called it acute asthma, Marcellus, the Cynanche Parotidea
Cyprus Membranosa, Dr Home Cynanche Stridulosa, Etmullus Catarrhus Suffocat
s. Dr Russell angina Inflammatoria, McLeod Epidmic Angina, Dr Darwin
pneumonia Notha Trachealis Elder Morbus Strangulatorius, Eller-Cy
the Larynges &c &c In the United States it is called vulgarly the Hives in Ire
and the Chocks, and in Scotland a facetious way and it the name of Croup
Cullen has named it Cynanche Trachealis, and appellation which we have
served in the following dissertation -

Situations in low marshy Countries, proximity to lakes and streams of running
ater, a residence along the sea board, are peculiarly propitious to the generat
of Cynanche Trachealis and we consequently see that those Countries,
ich and abundantly supplied by running streams, that the disease
vails most, than in Countries more remote from one of the most Comm
Causes of the disorder - Flows this fact and may account for the greate
valence of the disease, in the spring and autumnal months - We are
by Professor Potter, that the disease was ushered epidemic in this
y, by the occurrence of a damp spell of weather, succeeding to one which
been remarkable for its severity - But although no season of the year
which this disease may not occur, yet we are justified in the opin
that the spring and autumnal months, are more favorable to its
elopment - in Consequence of the humidity with the which the atmosph
is usually surcharged at these seasons of the year -

riod of life at which Croup usually attacks, is from the ~~prior~~ time of birth
the age of twelve. Dr Cullen says that the disease seldom attacks till after Children
weaned; but from unequivocal and very high testimony, the disease is not un-
mon while children are at the breast. We are also told by Dr Cullen that
disease not likely to occur after 12 years of age. Here we are again compelled to
ut from the opinion of the doctor; for the disease is by no means exclusively
icted to Children. many well attested Cases of Cynanche Trachealis might
duced, as having occurred at a very advanced age. The career of and
o Washington was terminated by this frightful malady. Dr Potter informs
, in his notes on Dr Gregory's practice, that he has witnessed more than two
Cases of distinctly marked ~~Cases~~ inflammation of the mucous membrane
the trachea within as many years. We admit however that the occur-
nce of the disease in adults, is only an exception to a general rule. for the
fantile period of life is peculiarly obnoxious to its attack; and it is a lamen-
ble fact, that those children who evince the greatest robustness of Constitu-
on and the greatest vivacity of intellect with dispositions the most sport-
e are more liable to it than children of weaker stamina, and of a more nervous
este. Those children, however who expose themselves to the inclemencies of
he weather, are not so liable to it as those over whom great vigilance is
reserved.

The disease is not confined to the lower Classes as some writers affirm
t extends its ravages & not only into families of the indigent, but into
families of all ranks and Conditions

in some families there is an hereditary predisposition to this disease — Dr Archer in his inaugural dissertation on this subject, remarks that it seldom attacks one child in a family, without appearing at some subsequent period in at least some of the children of the same common parents; he attributes this more to a similarity of habit and constitution. This habit doubtless transmitted from parents to children — This predisposition, we are glad to affirm is often annihilated by the growth of the body — Professor Potter remarks, that this disease is as often founded on hereditary predisposition as gout or phthisis, and that this proclivity to bronchitis does not always depend on a scrophulous diathesis. This is one of the sources of the error that it is contagious — Because several children in the same family are affected at the same time, they are supposed to have contracted it by contagion —

The contagious character of Tynanche Trachealis, is contended for by some — Dr Rosen von Rosenstein, when speaking of the Croup, says that it has not only been spread at Stockholm; but likewise about Upsal, in the Rabo parish, where during the year 1761 and 1762, in many houses it carried off all the children; some of them died on the second day; but the greatest number on the fourth and fifth days. They vomited up a quantity of slime and pieces of membrane — Neighbouring children, also, who visited the place, got infected with the disease and died soon after Dr Rutty mentions this disease as being epidemic in Ireland, but does not say that it was contagious — Dr Barton of Philadelphia in Clinic

clines to the opinion that this disease is contagious; and deduces his opinion from what he considers several unequivocal cases, which occurred to him in that City in the year 1793 when the disease prevailed there to a considerable extent. We are inclined to believe with Professor Potter that this disease is no more contagious than pneumonia and rheumatism. The same causes which induce an attack in one may obviously produce it in others. The advocates at the present day for the contagious character of this disease, ~~at the present day~~, are we believe, very few.

Other animals beside, man are frequently attacked with this disease. The disease which is peculiar to horses and dogs, commonly known by the name of distemper, is nothing more nor less than an inflammation of the mucous membrane of the trachea. Dissections of those animals who have died of this disease, incontestibly prove this point.

Professor Potter informs us that the predisposition to this disease is frequently destroyed by the occurrence of the Measles.

Cynanche Trachealis, is liable to be complicated with other diseases. It is also consequent to the Cynanche Class as Cynanche Tonsillaris and Cynanche Maligna. It is often complicated with small pox and measles. It occasionally occurs in the last Stage of Typhus. It also alternates with Rheumatism.

The Croup has been divided into the idiopathic and Symptomatic; the idiopathic or original inflammation of the trachea and bronchiae, and the Symptomatic, which follows the apthous Sore throat, the measles,

small pox, scarlatina, & cynanche maligna.

The pathology of this disease has given rise to considerable controversy, some contending that the disease is inflammatory, others that it is spasmodic. In this subject Dr. Cullen remarks from the remote causes of this disease; from the catarrhal symptoms commonly attending it; from pyrexia commonly present with it; from the same kind of preternatural membrane being found in the trachea, when the cynanche maligna is communicated to it; & from the vestiges of inflammation found on dissection; and must conclude, that the disease consists in an inflammation of the mucous membrane of the trachea & larynx, producing an exudation, analogous to that found on the surface of an inflamed viscera, & appearing partly in a membranous crust, & partly in a fluid resembling pus.

In the next paragraph the Doctor remarks: Though this disease manifestly consists in an inflammatory action, it does not commonly end either in suppuration or gangrene. The peculiar circumstance of this disease seems to consist in a spasm of the muscles of the glottis, which, by inducing a suffocation, prevents the common consequences of inflammation. In our humble opinion, "the peculiar circumstance of this disease does not consist in a spasm of the muscles of the glottis," thereby producing suffocation. The suffocation obviously arises from the membranous tube, which is doubtless the result of inflammation, & which according to our humble view of the subject, constitutes the peculiarity & danger of the affection, by obstructing the transmission

& atmospheric air into the lungs- We therefore consider the opinion of Dr Ballew on this subject as gratuitous- We consider ourselves borne out in this opinion, by the sound and rational view taken of this subject by Professor Potter- We beg leave to subjoin his remarks, as found in one of his notes to Dr Gregory's work on Theory and Practice of Medicine- The doctor says- If time and space would permit the necessary reasoning, it would not be difficult to demonstrate, that no spasm can be formed in Croup, nor in either of the ~~affections~~ diseases, of which the upper appendages of the lungs, are the seats- The inflammation sometimes extends from the lining membrane of the trachea, to the muscles surrounding the glottis, and in other cases it commences in the glottis muscles ~~in those~~ and travels downwards, but the situation and office of the muscles is such, that they can never close the passage into the windpipe- When in a state of inflammation, and irritating cause acts upon the muscles, great pain and tension is excited, but they are so antagonized, that they can not close the glottis- Those, however, who have adopted the spasmodic pathology of Croup, contend that dissections rarely evince any of the ravages of inflammation- Marks of high arterial excitement are however sometimes found- as may be ascertained by consulting the works of Dr Home on Croup, - Alexander on Croup. and Ballie's Morbid Anatomy- Dr Archer in his inaugural dissertation on this subject says, "but even if no marks of inflammation were found on dissection, it would not in my opinion, go in the smallest degree to prove the Contrary; for I can easily conceive and nothing appears to me more probable) that the vessels may be so far

an effusion, that not even a vestige of such a state shall be left behind
Now we know very well, that children seldom die of this disease, until the
vessels have in some instances nearly and in others entirely, relieved themselves by effusion; of course are opened only in this situation." Thus
writes Dr Archd and it is a sentiment to which we most heartily
concur. If Croup be a spasmodic action of the muscles of the larynx
a circumstance which in the opinion of Dr Cullen constitutes the peculiarity and danger of the disorder; we confess ourselves much at a
loss to account for the rapid effusion of the adventitious membrane
tube of coagulable lymph, which is almost the invariable concomitant
of the disease; and as we have previously observed, a circumstance
the occurrence of which, constitutes the danger, for if the dislodgement is not attempted, it goes on rapidly to augment, until at last
the trachea is completely obstructed, and the patient expires in
the agonies of suffocation.

In relation to the membrane formed in this disease. Professor Potter
writes thus. It is a secretion from inflamed vessels and presents all
the different consistencies, from the smallest change in health, to the
secreting process perfectly formed in inflammation; the condition
of the vessels seems to be incompatible with secretion; and in many
dissections we found the vessels injected with red blood only. The secretion
of the more compact form to which the term membrane has
been given, seems to be the fibrine of the blood, semiorganized, such

as we see it, where adhesions are formed between membranous parts—
This body is not only found throughout the bronchial bifurcations, but
throughout many of their ramifications into the small air
cells. If we macerate the membrane found in the trachea in wa-
ter, and then separate the internal softer parts from the more
compact, we find it to consist of numerous rectangular fibrous
lamellae, completely identified with the fibrine of the blood, collec-
ted by stirring it while flowing from a vein with a rough body,
the red globules being washed off. We have preserved and compared
and these substances, and no pathologist or physiologist, can dis-
cover the least difference

Cynanche Trachealis, then we consider an inflammation of the
mucous membrane of the trachea, occasionally extending to the adjacent
muscles. It is usually characterized by the following
Symptoms. Catarrhal symptoms and an ulcerated sore throat often
precede an attack of Croup. Occasionally however it is ushered in
with the usual phenomena of fever; the patient complains of rigors
alternated with heat—and other symptoms indicating febrile action.
The local symptoms now begin to develop themselves. A slight degree
of hoarseness is perceived, in company with an unproductive Cough
simulating in a great many instances an ordinary attack of Catarrh
In this deceptive manner does the disease sometimes make its attac
k. Febrile symptoms now begin to increase, the pulse which Dr
Rush has elegantly denominated, with his usual felicity of expression

Index to the system - is more frequent and hard, attended with extreme thirst and restlessness - The child now complains of soreness in the vicinity of the larynx, but attended with so little inflammation, as not to imp[illegible] in deglutition; the face becomes turgid and swollen, with blood; eruptions sometimes make their appearance; the voice altered from its natural tone, becomes shrill and sharp; the hoarseness and cough augment in violence; the cough is usually attended with a peculiar crowing sound; it has been aptly compared to the barking of a fox; to the croaking noise made by a young hen; It has considerable resemblance to the sound of air, drawn through a small aperture - The respiration of the patient is extremely difficult, the muscles of the thorax and abdomen are thrown into violent contraction

Unless the disease be arrested, a train of melancholy symptoms are ushered in - The countenance in all probability becomes pallid here at other times a full lived aspect - the patient becomes sleepy - but is prevented from realizing any respite by its balmy and invigorating influence, from the exertion of the respiratory organs - and to respire with facility to itself, it throws its head back, the symptoms progressing, until the extreme of exhaustion supervenes, the pulse now flags, the eyes become dim, coughing can no longer be effected, convulsions come on, and the unhappy sufferer expires, with all the phenomena of actual strangulation

Cynanche Trachealis runs it Course very rapidly to a fatal termination unless vigorously Combatted by the strictest antiphlogistic treatment- Dr Archer says it it not unfrequently attacks with all the suddenness and violence of an apoplectic paroxysm- The usual duration of the disease, when suffered to run its Course without the interposition of art, is usually about thirty six and forty eight hours; sometimes however it terminates in twenty four hours from the first attack, sometimes terminates in three or four days, at other times, it is protracted to twelve and fourteen days-

Predisposing Causes- Among the most prominent of these Causes is Cold, particularly when Combined with a humid State of the atmosphere

The Small Pox, Measles, Catarrhal affections, Aphthae, Pertussis &c may be enumerated as among the predisposing Causes-

Fatigue is also ranked as one of the predisposing Causes- as Crying fatigue induced by great bodily exercise-

Exciting Causes- They are all those which stimulate- Heat succeeding Cold, is supposed to be by some one of the most Common exciting Causes to this disease- Dentition is considered an exciting Cause, and Dr Horne mentions a saline atmosphere when it occurs along the Sea board-

agnosis - From Asthma, Croup may be distinguished by the sonorous inspiration, the intensity of febrile symptoms, the high Colored urine which characterizes it; in Asthma, there is absent the Cough the febrile symptoms and the high Colored urine; on the contrary the urine, the pulse is frequently preternaturally weak though in a great many Cases it is frequent and full; there is also in Asthma eructations, sometimes vomiting or a disordered stomach, and the voice instead instead of being shrill and sharp is croaking and deep -

From Cynanche Tonsillaris, and Cynanche Maligna, it is to be distinguished by an inspection of the internal fauces; these diseases are usually attended with an inflamed and tumid state of the tonsils, and by being accompanied with much pain and difficulty of deglutition; they are not attended with the croupy inspiration of Cynanche Trachealis -

From Pertussis - Croup is to be distinguished, by the paroxysms in Hooping Cough, attacking violently and from the absence of the stridulous inspiration during the intermissions

This disease sometimes Counterfeits an ordinary attack of Catarrh - When it first occurs, it is difficult to discriminate between them, such is the insidiousness of the attack, but as it progresses, the veil is soon withdrawn, and then it is developed in all the haggard deformity, the discription of which we have elsewhere attempted -

prognosis. Physicians in our opinion, should be particularly careful as to their
suspicions or unpropitious termination of a disease. The bold prognosticator
has frequently been chagrined to see the false hopes of the friends of the pat-
ient, which he had imprudently raised, blasted, and consequently exposing
himself to the shafts of ridicule and contempt. Dr Rush says, it is impossi
ble in acute diseases to tell where life ends, and where death begins. Hundreds of pat
ients have recovered who have been pronounced incurable, to the great disgr
ace of the profession.

Such is the usual intensity of an attack of croup, that unless the prominent
symptoms are moderated in the course of twelve hours, the patient usually
succumbs. If the patient is seized with syncope, if the pulse be weak
and tremulous, if the difficulty of deglutition be extreme, and the patient
pur a short, quick, and difficult respiration, accompanied with coldness
of the extremities and convulsions, the prognosis is certainly unfavorable
But should the reverse of these occur, if the stridulous respiration should
diminish in violence, if the cough of the patient be attended with expe
toration under the use of our remedial agents, we certainly can but
augur favorably from these symptoms. Dr Potter is of opinion, that when
the sonorous cough occurs early in the disease, it is a favorable symptom,
but that when it occurs in the last stages of the disease, the chances are
very much against the life of the patient. If after the disease has continu
ed some length of time, and then occurs a stridulous breathing, we are
to apprehend, that the dreaded membrane is formed or forming, and

consequently calls for the most energetic treatment for its dislodgement.
In the case of Croup we should never despair, for some of the most desperate cases have been relieved by an energetic practice.

(Treatment.) The treatment of Cynanche Trachealis resolves itself into two general heads, viz Our remedies should first be directed to the general System and 2dly. to the local affection.

Bloodletting. As the inflammation in this disease is very acute, we resort promptly to the lancet, as one of our most decided antiphlogistics. We are recommended to carry it to the extent of inducing delequium at the first bleeding. Some recommend us to take blood from the jugular vein until the pulse acknowledges it, but this we deem in the general unnecessary, as a sufficiency of blood can usually be abstracted from the arm; if however we should fail in the arm, we can resort to the temporal artery, which we consider preferable to the jugular vein, and from it by the use of cups, draw as much blood as the case may demand, in which we are exclusively governed by the arterial action. With regard to local detraction of blood, it is the opinion of many that it is injurious, by the necessary exposure of the surface to Cold, and the weakness of the patient during its tardy abstraction. Dr Cullen speaks favorably of local depletion. Upon the whole however we conceive that the judicious abstraction of blood from the arm is in the general to be preferred.

Emetics - All of the most approved writers, concur in reccommend the use of this remedy in this dangerous affection - Its beneficial effects appear to result from the discharge of the secretion, which so copiously takes place, and the removal of which it is certainly advisable to effect as promptly as possible - Emetics should be resorted to immediately after the use of the lancet - The best are Tart. Ant. Vin. Antim. and Ippecac. Professor Potter reccommends the conjoint use of Tart. Ant. and the Protochloride of Mercury - The reasons he assigns for this practice, are that as one of the peculiarities of this disease is a diminution of the sensibility, ~~by whe~~ of the system by which it is rendered unsusceptible of ordinary remediate agents, we resort to mercury, a remedy the operation of which, rouses the dormant sensibility of the system; and the tart. Ant. by inducing long continued nausea, and ultimately emesis, contribute materially to strangle the disease - Emesis however is not to be exclusively relied on Professor Potter calls it a half way practice

Cathartics - A soluble state of the alimentary canal is loudly called for in Cynanche Trachealis - The bowels should be kept in an active state - For this purpose some reccommend the use of Jalap, Sulph Mag - Sulph Soda &c; but Calomel is certainly far preferable to any of them -

Calomel however to be used with advantage in this disease must be exhibited liberally. The propriety of this remark must be obvious to every one who takes into consideration the rapidly fatal termination of this frightful disorder. Our remedies therefore, to be of any avail, must be proportionably energetic to the violence of the attack. The great fault in the exhibition of this remedy consists in the timidity and indecision of Physicians even in its use. Dr Hamilton of Edinburgh informs us, that he succeeded in every case where it was exhibited in this disease, if he were called previously to the supervention of symptoms of dissolution. Professor Potter remarks in one of his notes to Dr Gregory's Theory and Practice of Physick that "Calomel alone will generally succeed, but that there are very few who will venture to give one or two hundred grains in a single night, which is often indispensable and can scarcely fail to accomplish all we could desire." The apprehension that mercury used in such large quantities as here recommended will induce ptyalism is groundless. The system is in such an insensible state, that it is in general unsusceptible of an acute salivation. Even in very large doses it seldom acts as a cathartic; cathesis may ultimately be produced by it and when this does occur, assisted by an enema, the convalescence of the patient is in the general very rapid

Diaphoretics - As auxiliaries to more potent remedies as V.S. &c diaphoretics may be used with advantage - To answer this indication we may use Tart Ant et Potap combined with Nitras Potaspae, in such doses as to keep up a moderate degree of nausea -

Warm Bath - In the highly inflammatory stage of this disease, the warm bath, does not constitute a part of our treatment, but when the disease has run down into a low character, it will certainly prove beneficial -

Blisters - It is the practice of some eminent practitioners to make use of a blister in the first stages of croup - The propriety of this practice is certainly very questionable; they should be restricted to that stage of the disease, when inflammatory action has been abated by depletory measures -

Senka - This medicine is eulogized very highly by Dr Archer of this State in the Cure of Croup - As this article is decidedly stimulant in its properties, its indiscriminate use in all the varieties of this disorder, cannot be too severely reprobated - Professor Potter in relation to the use of this remedy in Cynanche Tracheali, remarks, after inflammatory action is reduced and the bronchiae secrete tardily, arising from a want of action in the part affected, the opportune use of Senka, tend to facilitate the secretions and Expectorations, by which means the recovery of the patient is materially facilitated -

Injections- Where we have obstinate constipation of the alimentary canal, from which this disease frequently originates, enemetics will produce the most beneficial Consequences-

To answer the second indication ie. to remove the preternatural membrane formed in this disease, several methods have been suggested- We are recommended by Dr Archer to use the Seneka for this purpose- As previously remarked in the acute stage, this article is too stimulating to be serviceable, in the latter stage when the membrane is formed it is inefficient- We have a superior remedy in the Bichloride of Mercury, which will scarcely ever fail to induce emesis, the only effectual method of which we are aware of answering this purpose- As this is violent remedy, it should not resorted to on ordinary occasions- On this subject Professor Potter remarks, "In that insensible state of the stomach, which is so often to be observed, when the excited fluids impedes the passage of air into the lungs, the Sublimate affords a prompt, safe and efficacious emetic, and has in our hands arrested the progress of the patient to the grave, even while he had reached the confines of eternity- One grain dissolved in an ounce of water is usually sufficiently strong, if a tea spoonful to be given every fifteen minutes till a complete Emesis shall have been effected- It often excites a soreness of the gums, but scarcely ever a profuse Salivation-

Tracheotomy - As the membrane formed in this disease is generally the Cause of death, this operation has been ~~of~~ performed, to permit the free passage of air into the lungs, but as the membrane extends generally pretty into the ramifications of the lungs bronchiae, it will be found to be insufficient, and indeed absolutely injurious, as it prevents the exhibition of more certain immediate agents - Three Cases however of its success have been added; in these Cases mucous appeared to be the Cause of the obstruction -

Prophylaxiae - Persons obnoxious to a frequent recurrence of this disease, should make use of the warm bath, wear flannel - An attack may frequently be prevented by the prompt exhibition of an emetic, as soon as any indications of this disease appear - Damp Clothes must be sedulously avoided, and during the winter they should be supplied with a sufficiency of bed Clothing, in fact all the remote and exciting Causes must be avoided

An
Inaugural Dissertation
on
Emetics and their Remedial
Application,
Submitted to the Examination
of the
Provost, Trustees and Faculty of Physic
of the
University of Maryland
for the degree of Doctor of Medicine
by
George R. Tall
of
Baltimore.

March 1st 1831.

To Robt. C. Cumming Student Medicine

In consideration of the many advantages which a Sincere friendship has afforded both of us, these pages are gratefully inscribed by the

Author.

Mar: 1831

To Henry Diffenderffer M.D.

As a mark of affection,
and in consideration of the many private and pro-
fessional favours conferred on his humble Servant the
Author.

March 1831:

. . . . "Careat successibus optō,
Quisquis, ut eventū, facta notanda putāt."

In accordance with an established duty, we would attempt a few desultory remarks in the form of an Inaugural Dissertation. And among the many subjects that have been presented to our minds as suited to such a purpose, we have chosen that of "Emetics and their Remedial application". In making choice of this subject, we are fully aware of our incompetency to do it justice — And while we are conscious that our youth and inexperience must err in the prosecution of our subject, we would humbly solicit for our infant pen a fostering attention.

Emetics are a class of medicines which admit of two divisions. First — those from the Mineral, and Second — those from the Vegetable Kingdom. They may be defined such medicines as excite by a specific impression on the Stomach a convulsive exertion through the mouth of the substances contained in that organ, and sometimes from other parts of the alimentary Canal.

In relation to the action of Emetics opinions are various. The Ancients, although ignorant of those sciences that give to medicine its present exalted ranks, were comparatively speaking as fortunate in their doctrine on this subject, as the moderns, when they ascribed it to a convulsive contraction of the Stomach, directed from the Pyloric to the Cardiac Extremities. Experiments of more modern date gave the conclusion that the Mechanism of vomiting resulted almost exclusively from the compression of the Stomach by the abdominal muscles.

Magendie after much inquiry on the subject adopted the opinion that the Diaphragm and abdominal muscles cooperate, and by their compression produce vomiting, but says they may each produce it seperately, as for instance when the Phrenic nerve is divided, or the abdominal muscles removed. Mainguault, another of the French Physiologist, after a series of experiments, was led to opposite results from those of Magendie, and considered the Stomach as the only active agent in vomiting. This is a subject still involved in uncertainty; and we conceive it unnecessary to go further in our notice of the many theories that have been, from time to time advanced to remove its mystery; and we would not have gone thus far, it it were not that the merits of the doctrine which has been taught us in this University, may be more distinctly seen in contrast with the above.

The Theory of the Machinism of vomiting to which we allude, and which we would adopt, is, that the act of vomiting consists in the combined contraction of the Stomach, particularly at its Pyloric orifice, the Diaphragm, and Abdominal muscles. We are more disposed to believe this from the circumstance of its embodying in it the leading points of all those opinions which we have recorded above. After having thus observed the immediate "Cause of vomiting, the enquiring mind naturally turns to contemplate the Philosophy of the subject, and eagerly asks whence is this train of phenomena? In this question hypothesis has been indulged to its fullest extent. Authors have laboured in ~~vain~~ bringing into existence their various theories, with their excellencies and defects, and

each has been observed to draw from his apparently equally well grounded researches, conclusions the very opposite of each other. — In regard to the Modus Operandi of Emetics, and without undertaking to notice the great variety of opinions, which are fraught with discrepancies, we would proceed to that which we are disposed to adopt as being most likely to account for the chain of actions observed in the administration of an Emetic. We think with the learned Professor of Materia Medica in this University, that on the introduction of an Emetic into the Stomach, an impression of debility is made on that organ, and secondarily on the Heart, arteries and Sensorium Commune; it is then reflected back again to the Stomach, producing the phenomena of which we have in part spoken. Succeeding this stage, there takes place after a short ~~time~~ space of time an indescribable sensation which we all know from observation, called Nausea. Some have supposed this sensation to proceed from the Stomach others from the brain. We are of the opinion that it results from the diminution of Cerebral excitement, which diminution or debility is referred to the Stomach. This state is characterized by great general prostration, the pulse is feeble, frequent and irregular, with a feeling of uneasiness either in the head or Epigastric region, the face pallid and the skin shrunk. Subsequent to this, there takes place the state of contraction of the Stomach, Diaphragm and abdominal muscles as before mentioned; slightly at first, then to a

greater degree, until at last the ingesta contained in the Stomach surmounts the obstacle opposed by the Cardiac extremity "are thrust into the Oesophagus; their presence instantaneously excites the contraction of the fibres of this canal, and in this manner they reascend into the pharynx: from this moment this latter cavity convulsively contracts, the glottis shuts up, the soft palate rises and assumes an horizontal station, the pharyngian cavity is gradually dilated a great abundance of saliva is poured out, the mouth is widely opened, the head is a little bent forward over the chest in order to shorten the Pharynx, then the ingesta are briskly thrust out, and often to a considerable distance: the same effect is produced commonly several times, respiration is suspended, tears are abundantly shed," there is an increased action of the heart and arteries, the vessels of the head particularly become turgid, and spasm and death may even ensue from the violence of the Emesis. Subsequent to the above chain of actions, there takes place a languor and debility from which the patient gradually recovers in a short time, and the system resumes its healthful action.

From the above view of the operation of this class of medicines, it may be properly supposed that their remediate application is both extensive and important. We shall therefore, attempt to speak in detail of their practical importance — In diseases of the brain unaccompanied by inflammatory action, they have been found a valuable remedy — As in Epilepsy

especially in those cases depending on a morbid secretion in the stomach, being given a few hours before the expected paroxysm. In Dyspeptic patients, there sometimes takes place a stupor depending on a torpor of the brain, and accurately counterfeiting Apoplexy, but to be distinguished by the pulse: in this state Emetics are very serviceable. In Hypochondriasis where the brain is also in a torpid state, Emetics have been of great service. But as this disease is for the most part attended by "abdominal congestion, as well as sluggishness of the whole portal circulation", this remedy would seem to do good, partly by its mechanical action in accelerating the abdominal circulation. In Apoplexy Emetics should not be prescribed; being a disease of high vascular excitement, and congestion of the vessels of the brain, in which bleeding is our only sheet-anchor. It is an affection which often attacks suddenly, after eating a hearty meal, when it might be supposed that the disease has been occasioned by the meal, and an Emetic would be the proper remedy, but it is not so, the meal is merely the exciting cause, hence the symptoms of the disease would be greatly aggrivated by vomiting. In the treatment of Asthma, Emetics are almost invariably useful in its incipient stage, but in a fully formed paroxysm it would be bad practice to use them. Bloodletting is the proper remedy in this latter state. Of the impropriety of this class of remedies in Hæmoptysis, there can be no question. We know that during the process of vomiting the circulation is greatly increased, and determined to the Lungs, these are ~~increased in vol~~ expanded, and a consequent

facility is given to the escape of blood from the ruptured vessels. If this class of remedies be given, however in Hemorrhagy, to the extent of merely inducing nausea, they are certainly advantageous. In Uterine Hemorrhagy this class of remedies is useful. They are supposed to act, because during the vomiting there is a compression of the Aorta by the Stomach, and more particularly by the Diaphragm as the great vessel passes through the crura of this muscle. This opinion, however, we consider erroneous after the active symptoms of the disease have subsided by the application of appropriate remedies an Emetic may be useful. In the treatment of Hysteria Emetics are used to advantage, if there be no congestion of the vessels of the brain. In this case the proper remedies must of course be adopted previous to their use. Dr. Dean of Pennsylvania in a paper published in the American Medical Recorder, gives his decided testimony in favour of the exhibition of Emetics in the Chronic form of this disease. He says on this subject, "it is in the chronic form of this complaint, in which the common routine of what are improperly termed antispasmodics medicines, produce no other than transient relief to the patient, that I have Experienced the most permanent good effects from the administration of Emetics. In cases of this description, I have by the continued exhibition of vomits, either entirely removed the complaint, or so far interrupted the habit of diseased action in the Stomach, that antispasmodic and tonic medicines, could in general complete the cure." In Mania a Potu if there be irritability of the Stomach, an Emetic might be given. This practice of using Emetics in this disease, was we believe,

first introduced by Dr. Rush of Philadelphia, and he states that "where a full emesis is produced the mental hallucinations are commonly much corrected, and in mild cases, sometimes entirely suspended by a single emetic. It will most frequently" says he "be necessary, however, to repeat the emetic, two, three, four, or even five or six times, at such intervals as the particular circumstances of the case may require." In the treatment of Typhus Pneumonia Dr. Eberle states that he has found emetics of "much advantage" in every stage of the disease. Professor Potter has also given his testimony in favour of them in this form of disease. He says "in the Typhus and Typhoid Pneumonia that occasioned such lamentable mortality, of late years, throughout the United States, emetics, judiciously employed, were more beneficial than any other remedy" of their utility in Pneumonia Biliosa, Professor P. also adds his testimony. "Experience has taught us", says he, "that emetics are eminently useful after the violence of inflammatory action shall have been abated, as well as in all the milder degrees with which this disease so frequently commences." In the treatment of Fevers this class of medicines is of especial importance. Administered in the forming stage of Typhus they often have the most happy effect, producing a favourable crisis in a very short time. "Antimonial emetics", says Dr. Armstrong", have been very generally recommended in Typhus fever, and according to my observation are serviceable when the fever is of the least complicated form, commonly producing an improvement in the condition of the skin, respiration and pulse in particular; and perhaps, it is on the power which they possess of determining the blood to the surface, and of

changing the morbid state of the circulation, that their efficacy depends". In Intermittents, Emetics are generally employed preparatory to the use of Tonic Medicines; And being given a few hours before the expected paroxysm, they will often either prevent it, or lessen its force. They are also advantageous in this disease "independant of the general impression which they produce on the System, and which of itself must aid in breaking through the chain of morbid associations, by appearing to render the Stomach more sensible to the impression of other remedies as Tonics, and consequently to give them a chance of displaying their full powers" ~ Emetics have been found serviceable in the cure of many of the Exanthemata. They are highly advantageous in the forming stage of Scarlatina both in its simple and malignant forms. When assisted by the Warm bath they operate by "freeing the system of the pressure of the Plethora of the internal blood vessels so frequently observed in the commencement of this disease, and by thus equalizing the excitement, to render the future case more manageable and mild" In the incipient stage of Measles and Small Pox "attended by an oppressive topical determination of blood to the chest, vomits are strongly indicated, and will in general afford very great relief". Dr Armstrong states that "When the Lungs have been exceedingly oppressed and particularly when vomiting has been absent, I have found the most striking relief follow an Antimonial Emetic." Emetics have been advised in Erysipelas. Desault placed entire confidence in this remedy in that variety of Erysipelas arising from Hepatic derangement, which he considered the genuine form of this disease. This plan of treatment would

seem to us improper as a principal remedy in any of the varieties of this disease. In the mild form of this disease Emetics are useful we admit, but even under such circumstances as these, the cure should be commenced by bleeding, or the use of refrigerating cathartics; and when the Liver is implicated nothing but of Mercury, can surmount the disease. In the different Species of Cynanche, Emetics constitute an important remedial agent; as in Cynanche Trachealis in ordinary cases they are indispensible and will generally arrest the disease. In cases when the secretion is abundant, we need not fear the quantity of Emetic medicine we administer, but may urge it until free vomiting is produced. But when the disease is fully formed it is exceedingly dangerous to trust to Emetics alone: the Lancet must be used and carried to the extent of producing a decided impression on the system. This plan of treatment carries with it the advantage of relaxing the Glottis, and checking the tracheal inflammation. It has also the effect of facilitating the operation of Emetics, by removing the cerebral congestion, and consequent insensibility of the Stomach to the action of remedies. In Cynanche Maligna Emetics seldom fail to give relief. By their use we bring off a considerable quantity of acrid matter, which if permitted to lay in the bowels, might induce Diarrhea, an affection to be avoided by every possible means, as always adding to debility and thereby endangering the life of the patient. In the treatment of Cynanche Tonsillaris, an Emetic has been observed to be of decided efficacy, in producing a solution of the disease. In Phthisis Pulmonalis, the practice of Emetics is recommended, but this must be a distinctive practice, especially in the inflam-

matory form. Where there is but little fever, and to remove what is called secretion they are useful. The best emetic for this purpose is the Sulph. cupri. in doses of from ½ to ½ gr. It acts promptly and leaves the stomach in a state of tone; but we should beware of the repetition of emetics in this disease. In the treatment of Dyspepsia, (except in the early stages, and then with caution, being apt to increase the atony of the stomach,) they are injudiciously employed. When this disease depends no longer essentially, simply, in functional derangement of the stomach, but has extended to the neighbouring viscera, they are also improper. Occasionally, however, when in this disease the food remains indigested in the stomach, with distressing pain, and symptoms of oppressed brain, an emetic will be properly given. In catarrhal affections it will be found necessary sometimes to give an emetic, so as to produce full vomiting at first, and then in small doses with the view of keeping up the nausea, thus equalizing the and resolving the diseased action. In the inflammatory form of Dysentery, before the system is reduced by bleeding, emetics are decidedly improper. But in those cases where we have a white tongue, dry skin, and nausea, they prove highly salutary, frequently breaking up the disease in a very prompt manner. In Pertussis emetics are important in often preventing strangulation, from an accumulation of viscid mucus in the bronchiæ but they should not be used previous to "prompt and decisive venesection". In Dropsy emetics are often given, and sometimes with the idea of their action increasing the activity of the absorbent system; but this is erroneous they act by altering the

action of the vessels, and sometimes do good. In Diabetis Milletis, they are highly spoken of by many distinguished medical Authors, viewing the disease as one of gastric irritation. They are a very common remedy in this disease with the German Authors. Sometimes Diabetis is an inflammatory affection when the depletory plan of treatment becomes necessary. In the cure of Jaundice Emetics are of essential use. When this disease is caused by the obstruction of the passage of the bile by a gall stone in the Ductus Cholidochus, they are of service by relaxing the duct, while the pressure caused by vomiting urges the calculus into the intestines. Emetics have a salutary operation in Hernia Humeralis after the free use of the lancet. They are also said to be of use in the reduction of Buboes. When Tic Dilareax is known to arise from accumulations of sordes in the stomach; Emetics are very serviceable in relieving the subject of this most painful malady.

Finis.

An Inaugural Dissertation
On
Phthisis Pulmonalis

Most respectfully Submitted
to the examination of the
Provost, Trustees, and
Medical Faculty of the
University of Maryland
for the degree of Doctor of Medicine
By John F. Williams of
Worcester County Md. 1831

Phthisis Pulmonalis Propria

Though almost unknown in some parts of the world, there is perhaps no disease which forms a wider outlet to human existence, which has attracted a larger share of attention, or which has in the course of time given rise to a greater diversity of views both pathological and practicable, than the one under consideration. Although we are unacquainted, and may perhaps ever be unable fully to explain some of the circumstances connected with its pathology; much of the discrepancy of authors and practicianers in regard to its management and cure has unquestionably arisen from classing under the same term, diseases, though affecting more or less the same organization, and possessing many symtoms in common, yet depending on different remote or proximate causes, occuring in different constitutions, and in fact themselves essentially different— Hence the necessity for a clear and distinct discrimination between those different diseases which are too often grouped under the head of consumtion, since remedies which might prove beneficial in one, might tend to hasten if not produce a fatal termination in an other. ——

Under the above term I propose to comprehend or at least succinctly to notice, and confine my observations to that form of Phthisis which depends on tubercles, and that which has for its remote predisposing cause mal-conformation of the Chest. Not because a greater similarity of symptoms, for perhaps the symptoms of some of the branchial or other pulmonic affections would equally entitle them to the distinction; but because of their general hereditary origin, frequent Coexistence, and the opposite nature of the treatment which they require.

The pathology of Tubercular Consumption has ever afforded an ample theme for speculation and disquisition among medical men. Notwithstanding much has been said, and although some of the views of the present seem more than plausible; still it perhaps remains for our progressing Science, through the medium of some luminary of the coming century, to consign the theories of the present day, as she has done many of those which were once equally plausible, to the shades of oblivion with the names of those who entertained them. Involved in the pathology of Tubercular Consumption is its hereditary origin, without which it is thought by some never to exist, that without the predisposition the

causes

causes which would produce it, under more favourable circumstances, excite a different disease. That it is transmitted from parent to offspring is an indisputable point, but that it may be the consequence of concurrent circumstances independent of a predisposition hereditary or congenital, appears to me but reasonable to suppose. For when we considder the disease is scarcely known in some of the tropical, more temperate, and less variable Climates, We are compelled to acknowledge Cold and vicisitudes of temperature, directly or indirectly its most frequent cause.

The disease is generally considdered closely connected, if not indentical with Scrofula, or at least according to Profesor Smith's definition an expression of that pathological state denominated Scrofula upon which many local diseases are ingrafted. However this may be, pathologist are not universally agreed. Profesor Chapman of Pensylvania University contends that the diathesis which gives rise to tubercles is sui generis, and as perfectly distinct as that which gives a tendency to any other disease.

A knowledge of the intimate structure of parts and that peculiar action on which the formation of tubercles depends is -

perhaps yet a desideratum in pathology. Dr Armstrong supposes the predisposition to consist in an unusual irritability of the capilary arteries of the connecting celular membrane of the lungs, and that when this state of things exists, any cause agitating or stimulating the lungs may lead to tubercles and consiguent phthisis. The tubercles themselves he supposes to be formed by exudations of coagulable lymph from the small and delicate vessels of the celular membrane of the lungs, which becomes semiorganized and finally inflicts irritation and its consiquences on the surrounding parts.

Bussais a celebrated and ingenious physiologist supposes tubercles to be nothing more than morbidly enlarged lymphatic glands. Hence the predisposition is most strongly fixed in the lymphatic system, if not of the whole body, of the lungs. Indeed this theory seems to be supported by the enlargement of glands being a frequent expression of scrofula, and the enlargement of the mesenteric glands which often accompanies the progress of consumption. As both of the theories which have been noticed seem plausible, would it not be takeing too limited a view to consider either as the sole cause to which

tubercles

ray be refered, and may they not sometimes depend on one
nd sometimes on the other? —
Although it may depend on a certain predisposition
give rise to tubercles; the obvious or more apparent symp-
ms must be ascribed to the tubercles themselves. Acting
s foreign bodies and producing irritation, they also make
ressure on the surrounding parts prevent the inflation of the
ir cells and obstruct the circulation in the small vessels
dded to which is the continual action of the lungs in
he performance of respiration, which is but too well cal-
ulated to hasten that state of inflamation, which those
odies would themselves ultimately excite.
Tubercles are small bodies from the size of a pinns head
o that of a garden pea, of a whitish Cartilaginous appe-
rance, situated in the parenchematous structure of
he lungs, and are much more numerous on the
uperior, than on their inferior portions. They are said
n dessection to exhibit various appearances, to be mu-
ous or mucoid, Cations or Cheesy, purulent or puncti-
fsions, or Calculous. To explain the causes which gives
ise to all these varieties, seems beyond our reach, hence
shall not attempt it ——.

Tubercles not only inflict irritation and produce inflamation in the surrounding parts, but take on inflamation themselves of that slow and chronic nature, which occurs in ligaments and cartilages in consiquence of their want of vasculacity and are said to be converted into pus. To say they are converted, or according to some softened into pus, seems to me to be rather incompatible with our present notions of pathology and the formation of this fluid. However, those who consider the fluid formed by a softening process, may perhaps view it as not being entitled to the distinction of pus; be this as it may, I am inclined to believe that it is formed by the same vessels, and under the same general law, and that nature under this law aims at the same result, but in consiquence of a peculiar morbid state of, the vessels fail to produce the pus in that state of perfection which characterizes their action when in a state of tone and vigour. Hence I believe the fluid to be formed as in other cases of inflamation, by ulceration; absorption commencing, in the centre of the tubercle, forming a cavity in which pus is deposited, and this process continuing towards the circumference

soon leaves nothing but a thin capsule, or opens a
communication, and is discharged by expectora-
through the bronchia —. As the expectoration is
frequently of a fœted and sometimes of a dark ap-
pearance, may not the violence of inflamation, or
some such cause cut off the communication between
tubercle and surrounding vessels and putrifaction
be the consiquence? —.

The pathology of that form which is the consiquence of mal-conformation of the thorax, presents us with much less difficultty, since it is directly or indirectly depending on the irritation inflicted on the lungs in the act of respiration by a contracted chest. This form is also most unquestiably hereditary, and frequently connected with that constitution of parts or particular diathesis which favours the production of tubercles. This narrowness of chest is of two kinds, though between them there may be every degree of gradation and sometimes neith will predominate; first that which seems to depend on a shortness of the clavicles, and a consiquent approximation of shoulders. And secondly that which consists in a flatness or approximation of the sternum towards the spinal column, whilst the chest is sufficiently wide in the transverse direction, in the first the back is crooked or prominent called round shoulders, in the second it in general remarkably strait.

A deformity of thorax may sometimes be a secondary occurrence, in consiquence of the lungs becoming from disease incapable of expanding, and the atmospheric pressure without preventing the formation of a vacuum within.

The external marks which are said to characterize the consumptive disposition, are, a clear and fair skin, light hair, bright eyes, white teeth, delicate rosy complexion, sanguine temperament, great sensibility, large and prominent veins, thick lips, and a narrow or contracted chest with long neck; but it is not confined to this particular external appearance, for we have certainly seen it in those who wanted almost every external mark which has been named —.

Under the etiology of the disease, cold and vicissitudes of temperature may be ranked as the most prolific source, and as before said may act both mediately and immediately to produce it, that is it may excite it in those who have a predisposition; or, by a long exposure of the individual to its influence, or its continued action on successive generations produce the disposition on which the subsequent disease depends.

Many other exciting causes are enumerated, viz working stone, certain metals, pointing needles, milling &c, these act by the floating, or flying particles of the metals or dust being taken in the lungs, and there producing irritation and its consequences —

he suppression of long continued discharges, repelled erup-
ions, and all those causes which break up and destroy
he integrity of the constitution, rendering it irritable and
more susceptible to the influence of surrounding causes.
The symptoms and progress may be divided into three stages.
A shortness of breath, tightness of the chest, sense
of internal heat, with some pain and soreness in the
breast, and a slight tickling cough, particularly noticed
on ascending stairs, or performing any unusual degree
of exertion, are in general the first symptoms which
characterize the approach of the disease.
The pulse from the first is commonly more frequent
than natural, and possesses some quickness and tension;
the pain in the chest is seldome acute in any stage
of the disease or fixed in any particular part, and indeed
it consists rather of a sense of uneasiness or soreness
than pain. The cough is short, tickling, and usually
dry, seldom attended with the expectoration of anything
except a small quantity of viscid mucous. There is usually
though sometimes imperceptable, some little febrile excite-
ment towards evening; as dryness of skin, restlessness, or thirst.

Hemoptesis is said to be an almost unerring attendant on the commencement of the disease, and is considered as one of the exciting causes; although it may sometimes excite the disease, especialy when a predisposition exists, it may perhaps be more justly ranked among its consiquences or symtoms.

The symtoms enumerated may continue in some cases without much increase or diminution for a considerable length of time; but more frequently if not early arrested or attended to, and even when they have received our earliest attention, too frequently increase, and the disease progresses unmolested in its course to the second stage.

The symtoms which constitute this stage, are hectic fever and purulent expectoration.

Sometimes when the disease has proceeded thus far, in consiquence of the diathesis not being strong, and there being but a few tubercles in a state of inflamation at any one time, the patient may in some degree recover, the purulent expectoration continuing, and live out a long life, and finally die of some other desiase; but such cases are extremely rare.

Hectic Fever has long been and is still a subject of dispute among pathologists — Some believe that it is caused and solely dependant on the irritation of absorbed pus; whilst others contend, that it is simply the effect of a powerful irritation acting on a feeble and debilitated constitution, independent of the influence of pus, that, it sometimes exists when there is no pus in the system, and that, it is not produced under the most favourable circumstances when there are large collections of pus in abcesses, or when there are extensively surfaces covered with pus and exposed to the influence of the atmospheric air. However this may be, I am inclined at this time to believe that, although the peculiar irritation of pus is the most frequent cause it may sometimes occur without it.

This is always a secondary affection resembling very the intermittent form of fever produce by Marsh miasmata, and like it consists of three stages, a cold, hot, and sweating. It sometimes assumes the character of a double quotidian, though more frequently there is but one paroxism in twenty four hours, which usually

ually comes on about five O.Clock in the afternoon
th a coldness seldom amounting to a chill, which
sting sometime is succeeded by some heat and dryness
skin, thirst, and burning sensation in the palms of
he hands and soles of the feet, with a peculiar red or
flushed spot, often appearing and dispearing on each
cheek. The pulse becomes more full and frequent, and
he urine ~~becomes~~ high coloured, and deposits a ropy sediment. The fever continuing
veral hours, begins to go off, the skin growing soft and
moist, the patient falls to sleep and awakes in the
morning, especialy towards the last stage, bathed in
sweat, generally most copious about the head and
neck. The pulse is now very feeble, ~~and~~ seldom beating
ore ~~by~~ than an hundred pulsations in a minuet, and the
atient feels much enfeebled. The tunica adnata of
the eye, in consiquence of the want of vascularity in
the expanded tendon beneath, assumes a pearly
White, or leaden hue, and the face though robbed of the
roseat flush of health, often acquires an expression of interest
and beautity, which even in health it did not possess.
The appetite, as well as the function of digestion frequently
remain

raing unimpaired till the last stage, and sometimes even more pressing than in health, owing no doubt to the great demand made by the system in order to sustain it under the debilitating expectoration, night sweats, and sometimes diarrhea; and as it is often attended with enlarged mesenteric glands, may it not sometimes be refered to that source, since then can be but a small portion of chyle taken up by the lacteals under those circumstances?

Generally towards the end of the disease, diarrhea often alternating with exhausting sweats, with Edema of the hands and feet supervene forming the last stage of the disease, and are but too portentious of what must soon follow ——.

Although reduced to the last extreme, and on the verge of an entrance to another world; the deluded patient is indulgeing in hopes of a speedy restoration to health, and forming schemes for future pursuits when perhaps his existence on earth hag even drawn to a close. However this is not universally the case, for some are denied even this shadow of Solace,

seem

seems sensible of their inevitable fate, and from the first sink without having enjoyed a cheering hope of future health to mitigate their course of suffering. Dr Armstrong supposes those cases to be complicated with an affection of the liver, which is very probable.

It is almost unnecessary to say any thing of that symtoms of that form of the disease, which arises from mal conformation of the Chest, since the disposition to the formation of tubercles is often inherited, or connected with this formation of body which only has to act as exciteing or further predisposing cause. If connected with tubercles, most of the symtoms already mentioned will only be modified by the incapacitated thorax producing more difficulty of breathing and cough, more irritation and inflamation, and consiquently a more speedy termination of the case. If there is no disposition to the formation of tubercles, Cold or some other exciteing cause producing a slow inflamation may give rise to an abcess, which may break suddenly and

and

roduce suffocation and immediate death, or be slowly discharged inducing hectic with all its concomitants progressing as already detailed."

Diagnosis

"Notwithstanding the importance of the diagnosis, it nevertheless difficult, if not in some cases impossible. If it always, as is supposed by some depended on a scrofulous diathesis derived from ancestors, or from mal formation; then should we have in general a sure criterion for determining by enquiring into the history of the constitution of ancestors, or in observing the peculiar formation of the patient himself. Though we must acknowledge this affords us our best means of distinguishing; since we are sometimes denied these means, we must endeavour to clear our diagnosis from the symptoms themselves, and although we may not in all cases be able to determine, still by taking into consideration the symptoms and progress, and contrasting them with those of the diseases with which they may be confounded, we may frequently come to a correct conclusion.

the diseases with which it is most frequently confounded are, Chronic Bronchitis, Hepatitis, and, inflamation of the lung terminating in abcesses unconnected with mal-conformation of the Chest.

It may sometimes be distinguished from Bronchitis by the latter in the first part at least being attended with a tenderness and pain on pressure of the larynx and trachea which seldom if ever is noticed in the first course of phthisis, by the absence of pain in the Chest by the greater oppression about the Chest, hoarseness and, almost loss of voice, and by its being attended with a more copious expectoration of grayish mucous or greenish puff, almost from the commencement, whilst the cough in phthisis is dry for a long time; and according to some by the Chemical difference between puff and mucous. But since it is now universally acknowledged, that puff may be formed without putrifaction, or ulceration; admitting the possibility of a discrimination (which some deny) that discrimination would not enable us to decide from abcesses by the latter being the consiquence of an improperly treated pneumonia, without the marks of mal-

malformation or Scrofula.

With regard to that form the sequence of a contracted chest, the sight of our patient with a narrow chest with most of the prominent symptoms of the disease is sufficient to make us tremble for his fate.

From Hepatitis, by the melancholic disposition slow pulse, tenderness about the liver, pain in the right shoulder, with many other symptoms of portal disarray. With regard to the Stethoscope, I know little, and must refer to Laennec on the chest.

Treatment. In giving the treatment of the disease, I do not intend to mention, or discuss the merits of the many remidies and plans which have in course of time been resorted to for its cure,— Suffice it to say that the earth bath, sleeping in cows' stables, asses milk, and an innumerable Specifics, which once held a place in the confidence of mankind, have sunk into deserved neglect, and received from the hand of experience a character which renders it unnecessary that their claims should now meet a refutation from me,— and whilst I

reflect on the plans of former periods, I must acknowledge with regret, that those of the present, though more rational are scarcely more effectual.

Since in my opinion the predisposition to the disease is most frequently the offspring of the influence of cold and vicissitudes of temperature; and since cold is its most common exciting cause, it appears to me obvious little can be accomplished towards effecting a cure unless those insuperable obstacles can be obviated, for, how can we expect to cure without removing the cause?

With this view of the subject, I can not but consedder an early and timely change to a more warm, more temperate and congenial clime as the most important means of prolonging existence we possess. But to be useful it must be early resorted to, for if it be defered, as is too often the case, till every other means has been tried in vain, it will prove equally abortive. —

Then on first discovering the disease, whilst yet in its bud, at the same time useing those means which are best calculated to obviate irritation, remove inflamation, and ~~at the same time~~ maintain the general integrity of the constitution, We should urge

a removal to a more temperate climate. For which purpose we may recomend East Florida, which appears well deserving a trial, and which if not equal to the south of France, Italy, or Spain, would be an excellent substitute.

If we can combine a sea voyage, with this change of residence, no doubt the advantages would be some what increased. A change of climate not only acts, by obviating the effects of vicissitudes of temperature but by changeing the distribution of the fluids; determining to the surface, and producing a thorough change in the habits of the system.

When a change of climate is not practicable, we must resort to those means which appear best suited to cure, or retard the progress of the disease,— and first, after attending to the immediately urgent symtoms if any exist, we should substitute in some degree, what I deem our most important radical remidy, by the use of flannel worn next the skin and confining in winter to an apartment of a well regulated temperature, or if the constitution is little impaired, taking care to obviate the influence of vicissitudes by warm and suitable apparel, we may suffer some degree of exposure and by degrees accustom the system

to the

system to changes of temperature, and thus in some cases render it less susceptible to vicissitudes; but we can rarely effect this.

According to the course we have pursued, we shall first notice the particular remedies applicable to Tuberacular Phthisis.

When ever there are evidences of inflamatary action of an urgent character, evinced by pain and difficulty of breathing, especially in the first stage of which we are now more particularly speaking) the use of the lancet is most unquestionably requisite, and should be used whenever those symtoms occur. Though evidently an inflamatary disease, in consiquence of its dependence, or close connexion with tubercles, we cannot carry bloodletting to that extend, which would eradicate inflamatary action without increasing the tendency to, and favouring the formation of tubercles. Hence we are deprived of the advantages of our sovereign remidy in almost every other inflamatary affection, and are compelled to combat it with antimonials, local bleeding, and counter irritants. Antimonials are useful, and are one of the most common and popular remidies. They act by lessning the force of the circulation, determining

to

the surface, and promoting expectoration, when the loss of blood is necessary, especialy towards the last stage local bleeding is preferable to general.— Counter irritants as blisters, issues, or seatons may be useful, if we can obtain their influence without the general system participating in the excitement locally produced, — I cannot but consider them a rational resource, and think the many instances of Phthisis alternating with cutaneous and local affections, and the exemption from the symptoms which pregnat women have been observed to enjoy, should encourage us in the use of revulsory measures —. Emetics have been highly recommended and are said to have cured the disease, by lessning the force of the circulation, determining to the surface, favouring expectoration, and finaly producing the absorption of tubercles. —

Digitalis as an antagonist to Phthisis once stood foremost in the field, but the unparalleled and boasted success of Beddoes and others, with this remidy, has not crowned its exhibition in the hands of subsequent practicianers. Together with the means we have detailed,

— exercise

exercise in pleasant weather either on foot, on horse back, or
in a carriage, with mild unirritating diet are necessa-
ry and useful.

Mercury has been recommended and used in this
disease, but as it increases the irritability of the system
and tends to render it more susceptible to the influence of
irritating causes, however useful it may be in bronchitis
or other affections we deem it improper in this.
When in spite of our efforts the disease has proceeded
to the second stage; our treatment must be some what
different; for it now becomes necessary to support the sys-
tem by all the means in our power.
It is said the French considder this the most favourable
time for effecting a cure, but we think if this period
is suffered to arrive all human means will be una-
vailing.
As tonics, at first we may use the most gentle, as quasia,
gentian, columbo, iron, hop. or lichen, the latter as an expec-
torant and a mild nutricious substance may be used with
particular advantage. When the system needs a stronger
support, the sulphate of quinine, with a nutricious diet,
requisite.

lphuric Acid to increase the appetite, and check the night
eats may be useful.— Prussic acid has been highly recomm-
ended, and the young Virginiana, containing this acid in
mbination with tonic properties, has been eulogized by Dr.
burly, as lessening irritability, checking nightsweats, and
t the same time giving to tone to the system.—
The pulvis ipecacuanha, may also be useful in allaying
irritation, and lessening the debilitating sweats,— Decoction
of oak bark is highly recommended in hectic fever by
our professor of Surgery Dr. N. R. Smith, given as an
enema—. By making a strong impression with corrosive
ublimate, Sulphate of quinine, or prussic acid we may some
times suspend and prevent the paroxisms of hectic, and
lengthen out our patients existence, which since life is
but a succession of days, it is our duty to do.
The Sugar of lead and opium combined may be useful
in checking the pain and diarrhea which attends the
st stage—. Expectorants are necessary throughout the
hole course of the disease, in the first stage, the tartrite of
ntimony is best adapted, in the latter stages, Squills, Liqu
ch gumarabic, or the Brown mixture.

To procure sleep even early in the progress of the disea
we are sometimes compelled to resort to opium, and
in the last stage it is almost indispensable, to lessen
distressing, irritation and pain, and finaly conc
our patients decent to the grave.

The treatment of that form depending on mal-con
mation of the thorax, does not differ essentially fr
that already detailed, except in requiring blood-l
and the antiphlogistic plan to be carried further
and more strictly adhered to; since the prime
indication is to lessen the quantity and force of
the circulating fluids in order to enable the
lungs to perform their function in the incapacita
chest, with as little effort and in as small a space as poss

An Inaugural Dissertation on Seasickness for the Degree of Doctor of Medicine, respectfully submitted to the Examination of the Honble R. B. Taney, Provost, the Trustees & Medical Professors of the University of Maryland, by Philip Bodmann of Frankfort, Germany, on the first day of April, 1831.

To Samuel N Baker M. D.

Professor of Materia Medica & Therapeutics
in the University of Maryland.

Sir,

Permit me to dedicate to you this first & feeble production of a medical education, guided for the greater space of time by your able & to me truly liberal hand; receive it also as a small tribute of gratitude deeply excited by your unremitted exertions, conjointly with those of the venerable Professor Nathaniel Potter, during my illness &

allow me to remain with sentiments of the highest esteem for your virtues & the sincerest admiration of your Talents

Your

obliged & grateful friend & pupil

The Author

To George Washington Boerstler M. D.

of Washington County, Maryland

this treatise is gratefully inscribed by

The Author.

Preface

The Author has selected the following disease (Seasickness) for a Subject of Inaugural Dissertation, not with a view of making a Scientific display, but merely wishes to examine into its Causes, their Modus operandi on the animal economy & to suggest a few practical remarks on its treatment, both prophylactic & curative.

Seasickness has generally been considered of such an innocent character, as not even to have attracted the attention of our writers on the Theory & Practice of Medicine. John Mason Good, Cullen, Philip, Wilson, Thomas, Gregory & other eminent men have totally neglected, this most distressing of all, though not generally fatal Disease, & probably have considered it beneath their notice to be treated of.

Doctor Miller of New York, is to my knowledge the only medical writer, that has bestowed some attention to this disease & we find accordingly a short treatise quoted in Gregory's practice with Caldwell's notes.

The Author being a foreigner, a Germanby birth & not perfect master of the English language, he begs the reader's kind indulgence, should he discover any grammatical errors.

— On Seasickness —

As seasickness has not been noticed by any of our strict Nosologists, I am unable to bring the Subject of my Thesis under any Order, Class or Genus of acknowledged & established Nosologies, & therefore feel myself at Liberty to adopt the modified Nosological Arrangement, namely that of classifying Diseases according to their Causes & now, this having a Cause sui generis its nosological position will be readily understood.

Seasickness or Mal à mer of the French takes its Name from the headache, Nausea & Vomiting which is produced by the unabated Motion of the Vessel at sea, as the principal cause, on persons that are unaccustomed to it; but this Remark extends also to all other animals such as Dogs, Cats &c when placed under similar Circumstances, & even to those that have been at sea repeatedly but have lived during a shorter or longer period on land, are frequently attached with this Disease; the same also holds

good with such as have been on a voyage during several weeks or even Months, in a smooth Sea will, on experiencing a Gale, be suddenly taken Sick.

Alth the Majority of voyagers are liable to this Disease, there are nevertheless a great many Exceptions; these we find generally in very young children & aged persons; now how shall we account for these Exceptions?

We know that persons of a very irritable Constitution & fibre are most liable to the Impression of Stimuli, whilst men of strong muscular fibre & due Balance of Excitement are with great difficulty to be acted upon & now this Circumstance will suffice to account for the above Exceptions; in children & very old persons, we find Sensibility in the former not very highly developed & in the latter blunted; nor are their external Senses so liable to receive Impressions; Idyosyncrasies may next be mentioned as giving Rise to a greater or less Liability to Sickness, as also former Habits &c.

Symptoms.

The voyager is generally, at first attacked with a sense of pleasurable giddiness, such as is

apt to proceed from a person's swinging or running in a circle or being rocked in a cradle; the same secondary effects result from this viz: a disposition to rest & sleep as if from fatigue; the patient closing his eyes almost involuntarily; as if to avoid the frequent loss of standards of measure & sight & gradually falls asleep; this lasts a longer or shorter period until at last he awakes from a disturbed sleep (resembling that of a dyspeptic patient who has eaten a full meal & sets his mind in operation immediately afterwards & falls into a slumber; his mind continuing during this period in activity) with confused ideas, languor, uneasiness with restlessness, & a violent headache (giving the impression to the mind as if a string was drawn much too tightly around one's forehead; the patient is, at the same time assailed with stupor, anorexia, great muscular debility & nausea followed at last by vomiting; if the stomach then is full, emesis takes place freely & the patient feels himself

very much relieved for some time, — but when on the contrary the stomach is empty, straining will be great & it is only after repeated efforts that something is brought up, consisting generally of either vitiated gastric Juice of most an intensely sour Taste or similar, sometimes to that of brackish Sea water, or of a quantity of Bile.

After this the patient finds himself very much exhausted, he becomes feverish, his skin is dry & hot, pulse frequent, quick & full becoming gradually feeble, excretions impaired, Tongue covered with a white fur & clammy, Gums pale & spongy, Urine scanty & high coloured, Cholicky affections, Bowels constipated, continuance of a distracting Headache with tightness about præcordia, great Irritability of Temper and almost a total despondency of Mind &c — Nausea & vomiting

The patient generally falls asleep after each Paroxysm of Vomiting from which he is awaked shortly by a new Paroxysm; his appetite at last becomes good & almost voracious but woe! to him who indulges in it; particularly with grose, tough indigestible food; a new almost

instantaneous Attack of Vomiting is excited, from which he is only relieved by a kind Slumber into which his wasted System falls &c

These symptoms last indefinitely according to the patient's Constitution, general state of health, wind, continuance of rough sea &c; during a Gale they are excited & augmented & abate with it again; but sometimes it occurs that the patient, particularly if he is in a debilitated State of health or labouring under some organic affection of Liver, Stomach &c is hardly ever free from all symptoms of this disease.

I shall now treat of the different Causes producing Seasickness viz.

Predisposing Cause.

Under this head we must mention that ill health or a deviation of the system from the regular performance of all its functions is one of the most frequent & effectual predisposing Causes the most common Examples we find in persons that enter on Board of a vessel with what is vulgarly termed "a foul stomach" or in other words a deranged State of the function of this viscus; produced by either general Ill health or

debauches in Drinking & eating, committed generally a few days anterior to embarcation, whilst separating from their friends & homes; it is customary that during this short period the friends & relations of our voyager evince towards him their amicable feelings by making him partake of all the Dainties that the Market affords such as Turtle soup, Crab & Lobster suppers &c & washing them down with liberal potations of Champaign, Spirituous Liquors &c

The immediate consequences of which, are a Revolt of the digestive & assimilating organs & their functions; our ~~sea~~ voyager finds himself assailed next morning, with Stupor & headache &c, he is next hurried on board of a Steamboat to convey him to the place of destiny, a large Packet (whose Motion is more perceptible than that of a small Craft or to use a Gasphrase "rolls more) lying within Sight of the Offing, but already in a Storm when Neptune holds perpetual & undisputed sway; our ~~sea~~ voyager enters on Board & has hardly time to bid farewell to his friends, before he is assailed by Nausea his Spirits almost exhausted during last Nights debauch, sink deeper still & he becomes the subject

of my Thesis.

General Illhealth, & local affections of the Stomach, Fauces, Lungs, Liver &c do, as will be readily perceived, act as predisposing Causes; constitutional or reflected Irritation & debilitated Constitution from direct or indirect Abstraction of Stimuli; Irritability of System as in Females, all belong to this Class.

Amongst the local affections, Dyspepsia & chronic Hepatitis are the most apt to predispose the System, owing undoubtedly to the illy performed functions of the Stomach & its morbid Association with the Brain; this position I can substantiate by several Examples that came within my Notice.

Exciting Causes (& proximate cause)

1. The unabated motion of the Vessel.

I shall not stop here to recite the different Theories of Vomiting framed by Darwin, Cullen & others but shall content myself with stating the Opinion of a modern medical writer as to the Modus agendi of Emetics. "An Emetic makes in the first Instance an Impression on the sentient extremities of the nerves of the Stomach; this Impression is immediately conveyed to the Sensorium commune in consequence of which its natural Energies are diminished as is evinced by the

Langour of both the intellectual & corporeal powers. But as the sensation of an irritated Organ depends in Reality, directly in a peculiar Excitement in the Sensorium commune, so we may infer that the Sensation of Nausea is the immediate & necessary Result of the peculiar & diminished excitement of the Brain, referred back to the stomach. That this is in fact the Case is demonstrated by the vomiting & nausea which are sometimes excited at the Sight or Smell, Taste or even the thought of a disgusting Object. Here however our progress is arrested. For we can trace no necessary connexion between Nausea & the mechanical process of vomiting.

All we know, which is sufficient to explain the phenomena of Seasickness is that as soon as the Equilibrium in the Excitation of the Brain & nervous system ~~by means of indistinct Impressions made on our~~ in or external ~~Senses~~, is disturbed, Emesis takes place, as is evinced & illustrated in Concussion of the Brain, incarcerated Hernia, Uterogestation &c Swinging, Rocking &c

This proposition aided by the Laws of Physic will account for its Phenomena, to wit:

"A force which moves a part of a solid Body must move the whole or break off a part."

"A force directed towards the central point in a Mass, will affect the whole Body equally: this is called the Centre of Gravity."

On the above physical principles we can explain satisfactorily the Rocking or Rolling of a Ship at sea — when the Centre of gravity of the Ship is too low or unequal, owing to all the heavy Load being placed in the stern, this pendulum like motion of the vessel becomes excessive & dangerous, in a rough sea.

Man or any other animal contained in the vessel bears the same Relation to the Ship, that the Ship bears to the Sea; now every motion of the vessel affects the voyager, he in Order to maintain the Centre of gravity accommodates his Body to the Motion of the vessel & assumes different postures; but in Order to change these according to Circumstances, he must rely & be guided by the perpendicularity & known position of things & objects around him; but the Eye is not suffered to rest long enough on any one

Standard of Comparison to make a clear Impression on the Retina & this consequently cannot convey a correct representation to the Brain: the same holds good with the Standards of Touch becoming incorrect; These repeated & indistinct Impressions on the Brain confuse & irritate it by which also its Relation with the Stomach is disturbed & Emeseis ensues.

Many experience similar effects in Carriages & in swings, or on looking from a lofty precipice, when known objects being distant & under a new aspect, are not so easily recognised; also in walking on a wall or a Roof: in looking directly up to a Roof or to the Stars in the Zenith, because then all Standards of Comparison disappear: all people in the dark & consequently all blind persons use standards belonging to the sense of Touch, & it is because on board of a Ship the Standards of both Sight & Touch are lost that the Effect is so remarkable.

2. But a malady also depends partly on the irregular pressure of the Bowels amongst themselves & against the adjoining parietes, when their inertia or downward pressure varies with the Rising or Falling of the Ship.

3. Change of Diet.

Persons whose stomachs have been tenderly nursed by Chickensoups &c will, when partaking of the crude Biscuit & salted meats made use of at sea be more or less affected with Indigestion &c

4. Air. Sea air although very pure & refreshing at first, will after a while in tender Constitutions produce a degree of Excitement, running down into indirect debility, if I may term it so; this position is verified by the degree of hilarity with which both brute & rational animals are at first affected; but this stage does not last very long; the voyager soon finds himself overcome by Languor & drowsiness, even at a time when the Motion of the Vessel is not very great; soon falls asleep & awakes after a longer or shorter period with symptoms of Seasickness.

But whilst dwelling on pure too an Atmosphere as an exciting cause, we must not forget the foul air generated in the Ship's hold &

Cabin & which tends more to produce this disease than any other Cause, save the Motion of the vessel. Many times have my fellow passengers complained of this noxious agent, particularly whenever a communication between their Births & the ship's hold was established, for the purpose of procuring something from the latter place, and have a few Minutes afterwards ejected the Contents of their stomachs, at a time too when other deleterious agents were not present.

5. Bilgewater. This name is given to the portion of water that penetrates through the seams of the vessel, & collects in the Bottom, there acts & decomposes the timber along with other substances as part of the Cargo & produces a mixture which on being pumped out & stirred up in a Gale by the violent Motions of the vessel, exhales most a disagreeable odour & This latter is particularly the Case in vessels that have been laden with Sugar or Coffee. These two substances putrefy very readily in Combination with Sea water & form with it most an offensive, thickish, Yeast resembling, fluid which imparts its Odour &

qualities to the blood &c it comes in Contact with & keeping up in it the fermentative process for 9 or 12 Months.

6. The Smell of Rigging, Tar, pitch &c is apt to disagree with delicate persons & may consequently produce its mite in contributing to a malady

7. And who is not aware that the passions of the Mind, who play such an active part in other Diseases, such as fear, grief, anxiety, anger &c will all tend more or less to excite in the voyager this Disease.

Diagnosis. It is hardly possible to confound this Disease with any other — the only ones that it could be mistaken for are bilious Colick & bilious Remittent fever; from the former it differs in point of intensity; there are no violent Tormina, no severe Constipation & no yellow furred Tongue & from Bilious fever it differs in its being not accompanied by that Recklessness & violent pains shooting throughout the whole Body; there is no yellow tinge of skin & eyes nor are the general symptoms of hyperæsia & great tenderness of pressure on epigastric & right hypochondriac Regions present —

Treatment.

This I shall divide into the prophylactic, the palliative & the curative.

At the head of the prophylactic Treatment, I must draw the Readers attention to the Choice of a proper vessel, for vessels differ as widely from each other as one saddlehorse does from another or one Tavern differs from the other in point of Accommodations; I do not refer here to the conduct, civil manners &c of the Captain & officers or fellowpassengers, with whom he will have to come into Contact, but rather to the Shape, size & trimming of the vessel, as on these points & qualities her "Rolling & pitching" at sea greatly depends. (this Information may easily be gained from seafaring men &c) as also to her accommodations as spaciousness of Cabin, births, provisions &c & other commodities

Particular Enquiries should be made into her present & two or three last Cargoes (for the Bilgewater produced by the Decomposition of Sugar, Molasses, Coffee &c contaminates a vessel for a length of time

Chloride of Lime will be found a convenient article, in the latter case, for correcting the

and destroying its noxious effluvia as also the vitiated Atmosphere of the Cabin &c.; it is generally used dissolved in Water & sprinkled on the Floors.

Before our voyager enters on board of the vessel he should endeavour to place his System into as perfect a State of health as possible; for this purpose it is advisable to observe a limited Regimen for several days; the Custom which is so very prevalent of feasting during the latter days of Separation, with their friends, & partaking during that time of food not only indigestible in its Nature but likewise in too great a Quantity & of swallowing ~~of~~ large & often repeated partings glasses of ardent Spirits &c ought to be strictly avoided.

Should the voyager's Stomach be disordered, his Appetite bad, Digestion badly performed & his bowels in a constipated State, a purgative such as a Dose of Calomel followed by a Dose of Rhubarb & Magnesia or some other Cathartic is to be exhibited; should the patient be very plethoric or inclined to Apoplexy, hemorrhages or be pregnant, some Blood ought to be taken from the Arm & purged with some hydragogue Cathartic.

An Emetic taken a few days before embarcation has been found to prevent this Disease.

Having ascertained that the proximate Cause of Seamalady consists in a constant Irritation of the Brain & nervous system, induced by the loss of wonted standards of sight & measure, & this creating a disturbance of the healthy Sympathy of relation existing between the Stomach & the above mentioned Organs, our Indication for prophylaxis & Cure of this Disease must be either to exhalt & by that means equaliging the action of the nervous system Brain or to allay its Irritability & Sensibility: For this purpose we employ Narcotics & Stimulants:

As it is not my Design to discuss Subjects belonging to Therapeutics & ~~Pathology~~ Materia Medica I shall confine myself to stating only a few Remedies such as come within our daily Range; and now I shall proceed

1. Opium & its preparations.

As Opium itself is liable to induce Constipation, headache &c I shall propose the use of Paregoric Elixir or Tinct. Opii Camphorata, the Acetate & Sulphate of Morphia, the acidulated Tincture of Opium, or Quaker's drops or the denarcotized acidulated Tincture of Opium

2. Elixir Aether Hoffmanni or Aether sulphuricus.

3. Camphor. made into pills or Mixture
4. Henbane or Hyoscyamus niger — Extract —
5. Alcohol & its manifold preparations viz.
Brandy, Gin, Rum, Whiskey &c
The different Kinds of wines as Madeira
Port, Sherry, Lisbon, Malaga, the French
& german white wines &c
Cordials as Eau de Noyau, Extract
d'Absynthe, Parfait amour, Orange, Citron &c.
Fermented Liquors as Porter, Ale, Beer &c.
6. Carbonate of Ammonia commonly termed
Hartshorn & its preparation the Aqua Amm
7. Condiments as Pepper, Cinnamon, Nutmeg &c
8. Carbonic acid gas as Soda powders, Seidlitz &c.

Having mentioned the different Powders commonly found on Board of a vessel, & necessary for the Relief of seasickness, we shall next speak of their exhibition.

From the time that our voyager enters on Board of the vessel, he should commence taking some of the Stimulants; with this view if he be accustomed to the use of alcoholic Liquors he may partake of them in moderate Doses, repeated in quantity & proportion as he feels any uneasiness; the choice of Formula I shall leave to the Reader's option.

If not accustomed to them however or we wish to avoid them from either moral or religious scruples we may administer the Elixir Paregoric in ℔ss Doses, or give any of the other ℔ptions of Opium, or if we wish a smaller or less nauseous vehicle, we may exhibit the Extract of Hyoscyamus in pills or the Carbonate of Ammonia or both combined.

At the same time his Diet should be regulated both in quantity ~~& quantity & quality~~; he should abstain from all coarse victuals & in their places partakes partake of some light gruel well spiced or Rice well boiled or Soup.

His beverage should be Coffee, Chocolate or strong Tea; the bad ship water (disgusting in itself to a Country or City palate) should be avoided & if partaken should be admixed with some Brandy &c or made into the form of light Punch, Lemonade, orgeat or Red saponder & water; for more extensive dietetic ℔ptions I shall refer the Reader to Parris &c on Diet.

Strict attention should be paid to the patients State of Bowels & Stomach — in Case of Acidity or Constipation, he must partake of some tonic Cathartic, as Rhubarb & Soda, or Magnesia &c

Should Sickness, occur in spite of our

Precautions, it will be our Duty to give Narcotics & Stimulants in larger Doses; a good formula for this purpose is the following

℞ Aether sulphur
Tinct Opii Camph aa ℥ij
Aqua ammon — ℥j.
C. Spirit Lavendul. ℥iij —
Sacch. Alb. q.s. M. a teaspfr every 20 minutes.

until Vomiting allay'd. or we may exhibit the Acetate of Morphia in Doses of ⅓ gr. repeated every half hour. — To these we may add as Auxiliaries Strong brown Coffee, Spirituous Liquors, Soda powders &c. One precaution is necessary in the exhibition of our medicines, that if we distend the Stomach too much with them, we shall increase the Liability of exciting Nausea & vomiting —

The patient should at the same time avoid the smell or correct it by means of the Chloride of Lime solution, of Bilgewater, Tar &c & with this view avoid remaining longer below deck, than absolute necessity requires; nothing feels so refreshing to the sea sick patient than a free Current of pure Atmosphere — I have known persons who followed up this Rule scrupulously as even to sleep on deck whilst the weather was fair, avoid the Disease altogether, whilst on

previous Trips they had been subject to it.

Besides this our voyager should, by means of a lively Conversation & free Intercourse with his fellowpassengers &c, direct his Attention away, from all fears & apprehensions of sea sickness — He should amuse his mind by means of playing at some diverting game; Reading during the first days of during a Gale will far from contributing to the Relief of our voyager only induce or aggravate the Disease, as his Eyes will be but too apt to loose sight of the Standards of Measure —

An Inaugural Dissertation on Death

Submitted to the examination of

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The Trustees and Medical Faculty of

The University of Maryland.

For the degree of Doctor of Medicine

BY

John J Grover

Of Emmitsburg

Fredk County

Maryland.

1831

Journal of Observations on

Meteorology

Kept at Fort Leavenworth

By

John H. Dyer

1834

To

James M Shark M D

is inscribed

The following Treatise

with sentiments

of respect and esteem

By his pupil

The Author.

Asthma.

This disease, like many others, has received its name from one of its most prominent symptoms; the word Asthma meaning nothing more than a difficulty in breathing. Although the disease is, by no means, of modern origin, its true nature has heretofore appeared, to have eluded the investigation of the medical world. Without entering, at present, into a description of the disease, as given by authors, suffice it to mention, that it has generally, and very erroneously, been considered, as spasmodic disease. Cullen and Rush, have confounded the proximate cause of this disease with the disease itself; the former has called it a difficulty of breathing, with a peculiar sound in respiration. Asthma may be hereditary, but it is frequently acquired, especially from neglected pneumonic affections. In some children, who are predisposed, the

frequently observe, from the least exposure, that peculiar wheezing, in respiration, so characteristic of the disease. The predisposition is sometimes overcome by the growth and developement of the organs, but children have been known to die with an attack of Asthma a few days after birth. The causes that produce this disease, are various, the principal of which, I will enumerate. The most fruitful origin, is from long continued disease of the lungs, as Pneumonia, Catarrh, especially that, called suffocatives, when not properly cured, all the class Cynanche, any thing that produces frequent congestion of the lungs, Pneumonia Notha particularly, the debilitating passions, frequent frights &c, producing hurried respiration, and if long continued, or frequently repeated, may terminate in asthma. Persons predisposed to Phthisis are subject to this disease, in which case, they frequently die from a gradual wasting of the powers of life, from the profuse secretion of the vessels of the lungs.

symptoms of asthma are frequently produced by irritating particles taken into the lungs during respiration, from which circumstance we frequently see the disease in Millers, and if predisposed to Phthisis, it frequently proves the exciting cause of that disease. A case is mentioned by Doct Potter, in which all the symptoms of Asthma arose from burning coal in a close room. Calculi in the lungs, it is said, have produced it, but may not the same inflamatory action, that gave rise to the formation of Calculi, have been the cause of Asthma? the same may be said of hydatids, which however may cause this disease, by the pressure they inflict on the blood vessels, independent of the previous inflamation, but in the majority of these cases, I believe that inflamation has been the remote cause. Repelled eruptions, or the sudden checking of any usual evacuation, as the menses, haemorrhoids &c, but it only occurs from these causes, when the system has been

dull at the time, and the proper means have not been
ed to reduce it. Under similar circumstances, the
withdrawing of a seton or an issue may have the same
ect. Plethora alone, may produce it, on account of the
eadiness with which the vessels of the lungs become
ngested, more so, perhaps, than any other organ in the
ystem. It may also be produced by metastasis, or
translation of other diseases to the lungs, from which
incumstance, it frequently results from Gout.

Concerning the true nature of this disease (Asthma) a
uestion has arisen, whether it depended on Spasm, an
ffection of the nerves, or congestion. Cullen calls it a
pasmodic disease, depending on a weakened state of
the nerves, from whom, however we beg leave to differ,
nd will endeavour to prove that all its phenomena
result from congestion in the veins of the lungs, and
is connected with the nerves, so far, as the blood vessels
re supplied with nervous power, and cannot act

without them, but no affection of the nerves, independent
of the blood vessels can ever produce asthma, but only
produce that state of action in the veins, on which the
disease depends. Some have located this disease in the
stomach, which, however, should scarcely be noticed,
and suffice it, to say, that medicine directed to the
stomach alone, in the first stage will not cure it,
but as Dyspepsia generally accompanies asthma, after
it has continued for some time, it is proper to notice,
that it is produced consecutively, and that all gastric
irritation should be considered the consequence and not
the cause of asthma. The preternatural quantity of
blood existing in the lungs, distends the veins, and
causes pressure on the air cells, which produces difficulty
in respiration, and from the partial obstruction that
the air experiences in its passage through the cells,
is produced that peculiar wheezing sound so charac-
teristic of the disease. Two states of this disease are

frequently mentioned, viz, humid and dry asthma,
but I consider them the same disease, and nothing
more than a different state of the same vessels, in the
one case, secreting a fluid, and not in the other.
No fact can be proven more clearly, than that this
disease depends on a fullness of the vessels, from the
sudden relief obtained by a copious bleeding in the
first stage, and the blood appears dark and grumous,
exhibiting marks of great congestion. But if we attempt
to explain the phenomena of asthma, by a spasm
of the branchia, or a convulsive action of the muscles
of the thorax, we meet with difficulties. The confor-
mation of the bronchia, will not admit it to become
so affected by spasm, as to produce the violent symptoms
of asthma, and moreover the patient experiences no
alleviation of the dyspnœa from the most powerful
antispasmodics, nor has he any ~~relief~~ moments of, temporary
relief, as would be the case, if a convulsive action

l the muscles, for convulsion is an alternate
ontraction and relaxation of muscle, so that,
uring the moment of relaxation, he should
xperience great relief; this, however, is not the case.
From the preceding observations, Asthma may, I
think with propriety, be termed, a nervous congestion
f the lungs, producing pressure of the air cells.
lthough this disease seldome makes its appearance
efore puberty, we sometimes see it attack children
oon after birth if it be hereditary, and may even be
ontracted in youth, independent of hereditary
redisposition. It more frequently attacks males
han females, especially those of short neck and round
houlders, such, in fact, as we would judge, from
ppearance, to be predisposed to Apoplexy. The attack,
lthough generally sudden, is sometimes gradual, and
receded by lassitude, a sense of weight in the breast,
nd sometimes a chill; generally attacks during the

night, or towards morning, waking the patient, perhaps from a sound sleep, and attended with severe stricture across the breast, he is compelled to arise immediately from bed, by the difficulty experienced in respiration, and fly, perhaps, to an open window for relief; the breathing is attended with considerable noise, so great, as sometimes to be heard through all the house, and although they are generally obliged to stand erect, there are some, who breathe with more ease, while in the horizontal position, the difficulty of speaking is great, being compelled to stop frequently during a sentence, there is a disposition to cough, but attended with difficulty, until a secretion is formed, which is expectorated with more ease, producing great relief, and frequently a disposition to sleep. In the first stage, the pulse is full and hard, the face, frequently, flushed, eye balls prominent, but in some cases you will find

the pulse irregular, and symptoms denoting exceeding illness, and next day, the patient able to attend to business; but after the disease has continued a length of time, and the patient has experienced many paroxysms, the pulse may be found preternaturally weak, for the irritability of the system and lungs, becomes diminished after a long continuance of the disease, so that stimulants may be required in the last stage, when the antiphlogistic treatment, was clearly indicated in the first. During the paroxysm, the urine is clear, but towards the close of it, we discover it coloured and depositing a sediment. During the course of this disease, we observe symptoms of Dyspepsia, and sometimes terminates in Dropsy, but which is always a dropsy of debility, and it is, as I have mentioned, on account of the sympathetic affection of the stomach, that the disease was supposed to be primarily produced in that organ. Every thing warm should be avoided in asthma,

ven a warm room is ungrateful, also every thing that
interferes with the free play of the lungs, as any tight
bands about the neck or breast, the clothes should be
loose, the air cool, but not disagreeably so to the
feelings of the patient, and a free current of air is
generally grateful. To an inexperienced person, a paroxy-
sm ~~would appear~~ of asthma would appear, as if
instantaneous death were the consequence, but it is not
the case, for they seldom die in the paroxysm, although,
sooner or later, death is generally the termination of
the disease, if not cured in the first stage. Hydrothorax,
though rarely, is sometimes a consequence of asthma,
and, I believe, invariably proves incurable; but
generally, asthmatics are free from other diseases, unless
they should be predisposed to Phthisis. It has been
said, that there exists a connexion between asthma
and Aneurism. I believe that aneurism of the pulmonary
arteries may produce difficult breathing by pressure on

the lungs, but it is not essentially connected with
asthma, and if it should arise from an affection of
the heart, we would not expect to cure it, particularly
as a cure is seldom effected in the most favourable
cases, and never, I believe, where the predisposition is
hereditary, but the same means are required to mitigate
the symptoms, as if the disease were acquired; the means
for this purpose are to be employed between the paroxysms,
and are such as give tone to the system, without increas-
ing the quantity of blood. The diet should be light,
into which, milk may enter with propriety, but a
flatulent vegetable diet, and animal food should
be avoided. The diet should be most particularly
attended to in the first stage, but in many cases,
after the disease has continued for a long time, the
system becomes so debilitated, that it is absolutely
necessary to allow a portion of animal food.
Their food should be taken in small quantities,

and as often as the calls of the patient may demand. This rule, I conceive to be adapted to convalescents generally, although we are instructed by ~~an~~ ~~[illegible]~~ some physicians of respectability ~~[illegible]~~ ~~[illegible]~~, to administer food no oftener than the patient has been accustomed to take it during health, but were this rule pursued, we would either distend the patient's stomach by giving large quantities, or permit a craving appetite to prey on his system, perhaps for hours, until the appointed moment for taking nourishment. This practice is certainly not adapted to the chamber of the sick. In the first stage of Asthma, ardent spirits should be avoided, and all stimulating drinks, as ale, porter, cider &c. The diet should not be warm, and coffee and tea should be avoided if practicable, for neither can be used for any length of time without an injurious effect. Moderate exercise is serviceable, but riding on

horseback cannot generally be endured, walking, and gestation in a carriage, but particularly on ship-board, if an irregular climate is exchanged for one that is milder and more equable. The exercise of swinging, if persevered in, would be attended with better effects than is generally ascribed to it. Hard labour is frequently useful, and sometimes removes the predisposition, and if pursued on board of a ship, is attended with the advantage of gestation, and perhaps sea sickness, which has frequently proved of service, and sometimes a radical cure of the disease. Flannel should be worn next to the skin, as an means that will increase the strength of the system, without increasing the quantity of blood, should be pursued. The state of the atmosphere, which the patient breathes, is a point of great moment, and should be attended to, particularly

as Asthmatics differ with respect to the state of the air, that is best adapted to each individual case, for some prefer the air of a city, a marshy, that of an impure, foul nature, found in the neighbourhood of marshes, and very few breathe with facility in the light and pure atmosphere of mountainous regions. Neither the warm bath nor opium should be used, they are frequently followed by the most severe symptoms. The cold shower bath is very useful, if used between the paroxysms, and even during the winter season, it may be used in a warm room, and the patient put into bed immediately after; it is frequently attended with the happiest effects, imparting tone to the system generally, and preventing a return of the expected paroxysm. They should be careful to observe the utmost regularity in their habits, sleep on a hard bed (the best mattress

a soft pine board) eat a light supper, retire early,
and rise with the sun in the morning.
All acid drinks should be avoided.

With respect, more particularly, to the medical
treatment of asthma, you can, before the disease
has continued for a great length of time, and the
heart and arteries remain active, cut short the
paroxysm by one copious bleeding, and even before
the paroxysm is fully formed, it may be prevented,
and the natural breathing immediately restored
by blood letting. You will always find an unnatural
fullness of the blood vessels, and as death, during
the paroxysm, is produced by suffocation, from
the impediment to the return of blood through
the lungs, nothing is more clearly indicated than
the immediate loss of blood, and we must be
guided in this practice by the effects produced on
the pulse, or the relief of the patient. Respect-

in view the age, sex, strength and habits of the individual. The objection offered to this practice is, that by repeated bleeding we occasion plethora, but as the digestive organs are generally impaired, it is not likely to produce that effect, but is effectually prevented, by the spare regimen to which the patient is restricted. Purgatives, it is said, are of no service in this disease, but I imagine, the reason of it is, that they are not generally, carried to a sufficient extent to reduce the action of the heart, but if persevered in, until that effect is produced, the patient will invariably experience relief; and if the regimen be afterwards attended to, the relief will generally prove permanent. Antimonials, diaphoretics, and the neutral salts, should be employed in this disease, only with the view, either directly or indirectly, of reducing the action of the heart and the quantity of fluids,

and we may look in vain for any specific
action they possess in curing the disease. Ipecac
and seloms may be employed for the same purpose
that we use purgatives, blisters have also been
recommended, but are too stimulating to be
used in the first stage. If the disease have
been permitted to run on to the second stage,
and the system will no longer bear the use of
evacuant means, we should employ such
stimulants as will, by their action on the
lungs, cause the vessels to unload themselves of
their superabundant quantity of blood, but
care must be taken to use them, only in the
last stage, after the action of the heart and
arteries has been sufficiently commanded.
For this purpose, we may use any of the expector-
ant gums and antispasmodics, as camphor,
valerian, musk, castor, belladonna, ammoniac

henbane &c, and these may be used in various combination with other antispasmodic or tonic remedies, and also with opium. The Lobelia has been very highly recommended, and in this state of the disease may prove beneficial. There is also another indigenous remedy of the vegetable class, the Symplocarpus Fœtida, that has been employed of late years, and it is said with much advantage; it is generally used in the form of tincture, and from the diffusible and durable effects it produces on the system, I think it a remedy of very great utility, in all cases where antispasmodics are indicated. In order to mitigate the violence of the paroxysm, the mineral tonics have been resorted to, and in many cases have certainly been used with advantage, but only as palliatives. In a majority of cases, after the disease has continued for a

length of time, all that we can expect to do, is
to palliate the symptoms, for the veins of the
lungs cannot regain their natural and
healthy tone. When tonics are used, the
preparations of Iron are preferable to any
other article of the class. They are principally
useful during the interval of the paroxysms,
by means of which you give tone to the capillary
vessels of the lungs, and promote the strength of
the stomach and general system. Particular
care must also be taken during the intermission
to avoid all the exciting causes that produce the
disease. By these means, the disease may be brought
in a great measure under our control, if not
radically cured.

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